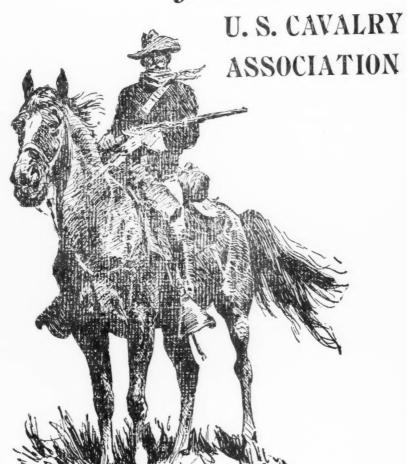
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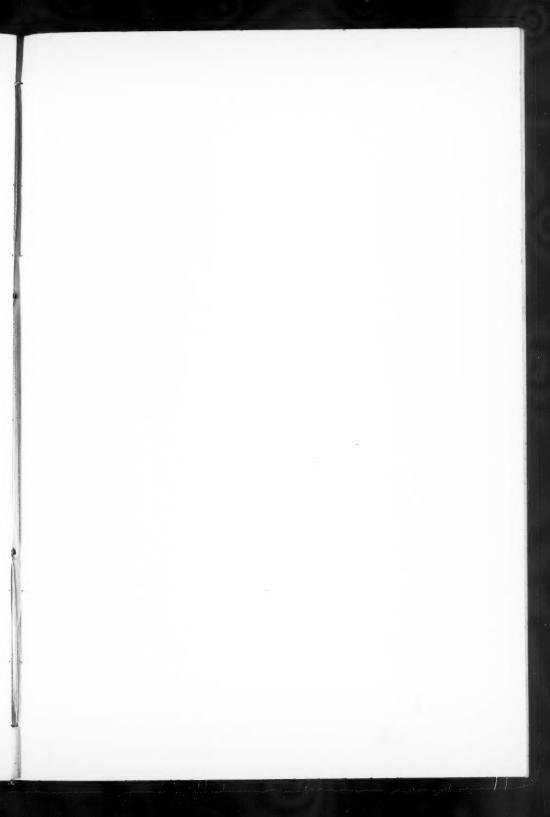
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# OUR REPRESENTATIVES AT THE INTERNATIONAL HORSE SHOW. Olympia, June 12-24, 1911.

CAPT. GEO. VIDMER. LT. GORDON JOHNSTON. 7th Cavalry, on Whitemarsh.

IIth Cavalry, on ROUSTABOUT.

CAPT. GUY V. HENRY. U S. Cavalry, on Enchantress.

LT. E. F. GRAHAM, 10th Cavalry, on JUSTINE.

LT. ADNA CHAFFEE 15th Cavalry, on Poppy.

## **JOURNAL**

OF THE

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LIEUTENANT COLONEL EZRA B. FULLER, U. S. ARMY, RETIRED, EDITOR.

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#### THE

# United States Cavalry Association

ORGANIZED NOVEMBER 9, 1885.

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Fort Leavenworth, Kansas

#### JOURNAL

OF THE

# United States Cavalry Association.

Vol. XXII.

SEPTEMBER, 1911.

No. 86.

THE OLYMPIA INTERNATIONAL HORSE SHOW.\*

BY MAJOR FREDERICK S. FOLTZ, FIFTEENTH CAVALRY.

#### PRELIMINARIES.

N April 24 I was detailed in charge of the team of officers selected as competitors for the International Horse Show at Olympia, London. The following officers had been ordered some two weeks earlier to Fort Myer, Virginia, and had already begun the training of a number of horses for the competition: Captain George Vidmer, 11th Cavalry; Captain Guy V. Henry, unassigned; Lieut. Gordon Johnston, unassigned; Lieut. E. F. Graham, 10th Cavalry, and Lieut. Adna R. Chaffee, Jr., 15th Cavalry.

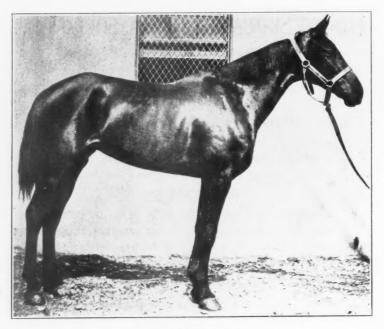
The horses were a number presented to the Government by public spirited civilians interested in our making a good showing at the competition, also a number of horses the property of officers of the Army and considered as likely to do well—a few animals from the school at Fort Riley, from the War College

<sup>\*</sup>Extract from the report of Major Frederick S. Foltz, Fifteenth Cavalry, in charge of the team of officers representing the United States Army at the international competition in London, England, June 12 to 24, 1911.

detachment at Fort Myer, and one from the 11th Cavalry, Fort Oglethorpe, Georgia.

Nine enlisted men from the Mounted Service School Detachment had been detailed as grooms.

Mr. Everett Everett, Veterinarian, Quartermaster's Department, was detailed to accompany the team and placed in charge of the conditioning of the animals.



ENCHANTRESS.

Owned by Major F. S. Foitz, 15th Cavalry.

On May 18th the following horses were finally selected and shipped to New York: Duke of Ashley, Justine, Quandry, Roustabout, Chiswell, and Poppy, the property of the United States Government; Enchantress, the property of Major Foltz; Regent, the property of Major Allen; John Harper, Ottawa and Whitemarsh, the property of Lieutenant Johnston; and Cygnet, the property of Lieutenant Chaffee. These horses

were entered as follows: John Harper as riding horse, and as charger; Chiswell as riding horse, as charger, as qualified hunter (to jump), and as hunter (not to jump); Duke of Ashley as charger, as qualified hunter (to jump), and as hunter (not to jump).

All of the horses, with the exception of John Harper and Chiswell, were entered for the five open jumping competitions and for the Canadian challenge cup, for officers only; the Duke of Ashley was later scratched as unfit.

Quandry, Justine, Enchantress, Ottawa, Whitemarsh and Regent were also entered as qualified hunters (to jump).

Quandry, Roustabout and Ottawa were entered for the three high jumping competitions.

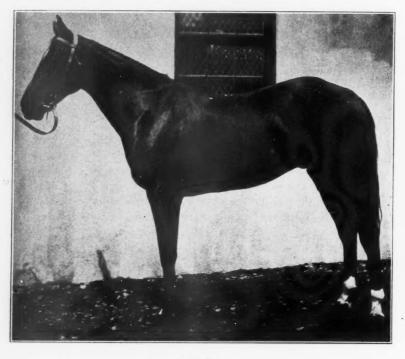
#### OLYMPIA.

The organization of the Horse Show is excellent and the building is perfectly adapted to its purpose, being of steel and glass and accommodating an arena measuring 320 feet by 80 feet, with ample seating capacity and room back of the seats for exhibits and sales rooms for saddle and horse equipments. Outside of the hall proper there is stabling, but no room for exercising except the narrow alleys, which are usually overcrowded.

The fact that there were 5,000 entries indicates the magnitude of the undertaking, which has now seen its third year of success. The prices charged for the seats vary from \$1.25 for the seats far back at the top in a gallery (separated from the main auditorium) up to \$16.00 for the best single seats down in front. This is for one performance only; there were three daily, in the morning 9 to 1, afternoon 2 to 6, and evening 7 to 11, or later.

Although the attendance was reduced during the first week by the attraction of the Ascot races, yet the second week more than counterbalanced the poor attendance of the earlier days. It was said that the original plan had been to hold this international horse show in a different national capital each year, but that the financial success of the London show and the facilities afforded by the Olympia buildings and by the organization which had been perfected, had operated to fix the show permanently in the British capital.

The lighting of the ring was practically perfect. Direct sun light was excluded during the day by screens tinted blue, and at night all electric lights low enough to catch the eye were screened by colored lanterns. A few brilliant mercury lights were used, but these were drawn into the apex of the



OTTAWA.

Owned by Lieut. Gordon Johnston, 7th Cavalry.

roof where they were so high as not to be noticed. If anything, the lighting at night was more favorable to the jumping than in daylight, bringing everything out with great brilliancy and distinctness.

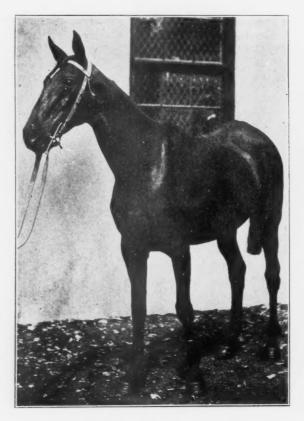
Prior to the Horse Show, Olympia had been occupied for two weeks by the Royal Military Tournament, which has been

held yearly for some twenty years, I am told, and which brings in a large profit annually for the benefit of an army and navy relief society. This exhibition, which we were able to see twice before the opening of the Horse Show, is very interesting, comprising as it does military riding and jumping similar to that at Olympia, musical rides, driving of horse batteries, competition between naval gun crews, gymnastic drills, contests mounted and dismounted, with saber, lance and bayonet, competitions in harnessing and dismounting the army transport wagon, and spectacular exhibitions, one of which we saw representing an Arab attack on a British camp, the arrival of reinforcements and the storming of an Arab town. Some British troopers, perfectly gotten up as Bedouins, gave a magnificent exhibition of tent pegging with lances, and the program concluded with a magnificent pageant representing the military and naval history of England, followed by a display overhead of the signals which Nelson flew at Trafalgar. It was even said that the signal flags used were the original ones.

#### THE HORSE SHOW.

The show extended over a period of two weeks, beginning Monday, June 12th, and ending Saturday, June 24th. work in the ring began every morning at 9:00 a. m. and continued until midnight and sometimes until 1:00 a. m., with an hour interval from 1:00 to 2:00 p. m. and another hour from 6:00 to 7:00 p. m. Our principal work was in the jumping classes, which were very large, the entries numbering over 300 in each class. They were consequently broken into four sections, jumping at different times throughout the day, and as a general thing some of our horses appeared in each section. In order to get the greatest benefit from our experience, all the officers of the party were present whenever any of our horses were in the ring. This, together with the necessity of exercising the horses and giving them each such training as could be managed in the narrow alley ways outside of the building (and by sending the horses to Preece's riding academy), kept all of us thoroughly occupied, necessitating our leaving the hotel at 8 o'clock in the morning, and it was

seldom earlier than 1:00 a, m. when we returned at night. The long underground railroad trip consumed most of the hour at noon, leaving us scant time for our luncheon, which we sometimes took at Olympia itself under an arrangement made by the Horse Show authorities.



CYGNET.
Owned by Lieut. Adna Chaffee, 15th Cavalry.

The important work of the Horse Show is practically comprised in the five open jump competitions, in the Canadian Challenge Cup for officers only, and in the two Royal Cup Competitions, the George V, for performance by individual



# INTERNATIONAL HORSE SHOW OLYMPIA JUNE 12"-24" 1911

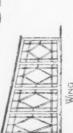
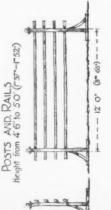


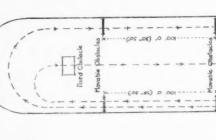
DIAGRAM OF JUMPS



STONE WALL
Height from 56 to 56" (ros-re?)



SKETCH PLAN OF COURSE



Height from 4'6" to 5'0" (1" 37"-1" 52°)

WATTLE FENCE

RAILWAY SLEEPERS :

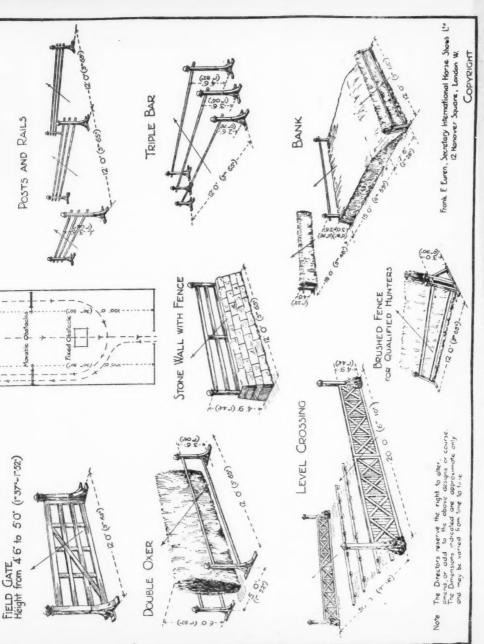
Height from 4'6 to 5'0' (1-37-1-52)



POSTS AND RAILS

FIELD GATE Héight from 4'6' to 5'0" (1-37"-1-52")

+----12.0' (5" 65°)--



FROM THE RIDGE AND DRIVER OF JUNE 8, 1911.

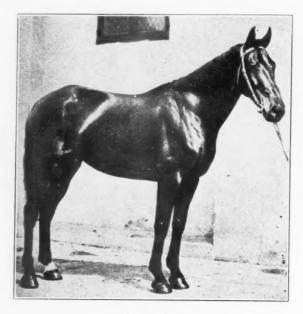


officers, and the Edward VII, for performance by teams of three officers. The course in each one of these competitions is practically the same. The ring measures 320 feet in length by 80 feet in width. On the sounding of a signal on the trumpet, the doors at one end of the hall are thrown open and the competitor rides into a brilliantly lighted arena, banked all the way round with growing plants. Plants and flowers also form the sides and wings of the permanent obstacles in the middle of the ring. The obstacles and the wings are painted white, and the floor is composed of a deep bed of peat moss tightly rammed, over which is spread a few inches of coarse tanbark, which gives a very firm and dustless footing.

With a start of some 100 feet, the horse takes the first jump, say, a post and rail fence four feet, nine inches in height, then a triple bar, and on the other side of the hall a stone wall and a gate. He again takes the first two jumps, and then turns down the center of the hall, jumping a three-foot fence on to a bank, and then from that bank over a two-foot, six inch wall to the ground, a drop of five and one-half feet. He then must take a three and one-half foot fence, and at the other end of the hall a railroad crossing, which is an in and out over gates four and one-half feet high; making this run inside of two minutes. The horse has thus taken six jumps on the outside track over four feet, nine inches in height, and has then taken five more of some lesser height, but of unusual character, in the center of the hall.

The obstacles were very carefully made and very light, so arranged as to be knocked down by the merest touch. A touch with either the fore or the hind feet counted one-half a point against the horse, and in order to assist the judges small light strips of wood were laid on the top of each gate or fence so that they would be knocked off by the slightest touch. The gate or fence itself was suspended by an iron pin at each end, this pin resting on another short pin set horizontally in the supporting post at either end. A very slight blow of the hoof would thus knock the suspended obstacle off the supporting pin and bring it down, scoring four points against the horse. The top blocks of the stone wall were very light, hollow, wooden boxes that were similarly easily knocked down, making an

ordinary "tip" count as knocking down the obstacle. The various other obstacles shown in the prize list of the Horse Show, such as the wattle fence, the double over, the triple post and rails, the railway sleepers, brush fence, and stone wall with fence, were substituted for other obstacles already mentioned on the outside of the track in the different jumping competitions.



ROUSTABOUT.

A Government Horse.

The result of the light construction of the obstacles, and of the ease with which they could be upset was that many of the horses, after discovering that they could strike them with impunity, did not make the effort to clear them, and deliberately tipped them, bringing them down; the result being that the prizes were won by horses that had been specially schooled by various devices to deliberate and cool performance and to absolutely clean jumping.

The scoring in the jumping contests was entirely mechanical and absolutely fair. A judge stood at each jump, and as the horse entered the ring put his number on a card. As the horse passed him he noted the score one-half for a tip (indicated by the falling of small strips of wood laid on top of the obstacle), two for upsetting the obstacle with the hind legs, four for upsetting the obstacle with the front legs or for the fall of horse or rider, two for the first refusal, three for the second refusal of the same obstacle, the third refusal debarring the horse. When the trumpet sounded for a horse to leave the ring, a messenger boy, at each judge's elbow, ran with the card to the edge of the ring and passed it in to an office below the seats, where the totaling of the score and the report of the result was made out by clerks, to be announced later.

Some idea of the severity of the competition can be gleaned from the following statement of the representation in the Canadian Cup Competition (for officers only). In the open jumping competitions, classes 100, 101, 102, 103, and 104, we competed against these same contestants with the addition of some fifty or more civilians.

In the King George V Competition each competitor could ride but one horse, and in the King Edward VII each nation was limited to a team of three.

Nationality of Officers entered for the Canadian Challenge Cup.

|               | No. of    | No. of horses |
|---------------|-----------|---------------|
| Nation.       | Officers. | Ridden.       |
| England       | . 77      | 139           |
| France        |           | 43            |
| Russia        | . 11      | 28            |
| Belgium       | . 9       | 21            |
| Germany       | . 9       | 17            |
| United States | . 5       | 9             |
| Canada        | . 2       | 8             |
| Sweden        | . 1 .     | 3             |
| Italy         | . 1       | 2             |
| Norway        |           | 1             |
| Holland       | . 1       | 1             |
| Total         | . 141     | 272           |

The French, the Russians and the Belgians had practically their own way; Germany, England, United States and Canada following with decidedly lower averages. The management of the Horse Show did not make public the scores, but as the system of judging was entirely mechanical and nothing but performance counted, it was easy for an attentive spectator to keep a score which should be very nearly accurate. From the incomplete scores kept by our party, the average faults made by each nationality during the jumping contests, not considering those horses that were thrown out for refusals or for failure to finish on time, were as follows: France 8 2/3, Belgium 11 1/3, Russia 11 2/3, Germany 14 2/3, England 17, United States 20 1/4, Canada 20 1/3.

It is to be noted that although five of the jumping competitions were open to all comers, these, as well as the classes for officers only, were practically international contests between officers, as the special schooling required put the French, Belgian and Russian officers far in advance of any civilian competitors.

In the George V competition, Russia, with 7 horses, stood first, with an average of  $4\frac{1}{2}$  faults, one horse being debarred for refusal. Belgium, with 7 horses, had  $8\frac{3}{4}$  faults, and one horse debarred. France, with 11 horses, had an average of 11 faults, with two horses debarred for refusal. America, with 5 horses, had an average of  $15\frac{1}{2}$  faults. Germany, with 4 horses, had an average of 16 faults. The British, with 28 horses, had an average of  $17\frac{1}{2}$  faults, and two horses debarred for refusal. Canada, with 3 horses, had an average of  $20\frac{2}{3}$  faults.

In the competition for the King Edward Cup (teams of three men twice around the course): France had an average of 6 1/3 faults; Russia had an average of 12 1/3 faults; England had an average of 13 1/3 faults; Belgium had an average of 14 2/3 faults; Germany had an average of 17 2/3 faults; Canada had an average of 20 faults, and the United States had an average of 28 2/3 faults.

In the championship jump, in which the winners of the other jumping contests competed against each other, the French made an average of  $9\,1/3$  faults, the Belgians 10 faults, Germans 11 faults, English  $11\,2/3$  faults and the Russians  $15\,1/3$  faults.

In the Canadian Cup competition an incomplete score shows:

| Country           | Average No. of Faults. |  |
|-------------------|------------------------|--|
| Halland (1 hama)  |                        |  |
| Holland (1 horse) | +1/2                   |  |
| France            | 12                     |  |
| German            | 14                     |  |
| Britain           | 15                     |  |
| Belgium           | 16                     |  |
| America           | 17                     |  |
| Russia            | 18                     |  |

An examination of the scores shows that although the element of chance entered largely in the competition, yet the horses that had been for years schooling specially for this kind of work came out ahead in the long run. Russia had not, it is true, competed at Olympia before, but I learn that Russian officers had been present as spectators. We had the advantage of observing their work in the riding school, where their horses and ours were stabled, and saw that they were following the same method of schooling as the French and Belgians.

It was noted that the best horses had their off days, as for instance when the Russian, after winning the King George Cup with a perfect score, knocked down many of the same obstacles on the next day. I think it was also demonstrated that the horses that had not been specially schooled did worse and worse as the show went on, due to their discovery that they could knock the jumps with impunity.

Our horses went boldly and freely, and were much admired for these qualities. They gave us no refusals, except when at the very end of the show we attempted, as a last resort, to reduce their speed. This brought refusals in the case of Enchantress and poor jumping in the cases of Justine and Poppy. It was realized that this habit of free going could not be corrected suddenly, and holding was only tried at a few jumps as a desperate experiment in order to pull up our record. It was noted that none of the horses that went at high speed, either of

our own or other nationalities, took the prizes. The winners were animals that were thoroughly under control, cool and deliberate in their action. There were other horses besides our own Justine and Poppy which ran the course and gained applause by their broad flying leaps, but they, like our own, did not score

for the prizes.

The style of the winning riders was practically that of the Saumur School of Riding, but the rider was off of the saddle by the time the horse was in the wings of the jump, and did not come in to the saddle in the normal seat until the horse had landed. The balance was preserved by means of the contact of the knees and legs, but if the neck was touched the support gained thereby was only slight, as the hands were thoroughly in control of the reins and mouth throughout the jump. A few of the civilian riders, and also some of the British and Canadian officers, supported their weight at the end of the jump on a bridge of the reins in an exaggerated effort to relieve the hindquarters and secure a clean performance for the hind feet, but it was not apparent that any good results were obtained by this. All sorts of peculiarity of seat were also to be observed in the riding of the British officers and hunting men. For instance, in some cases the body and seat was moved violently from side to side as the horse got within the wings, with the apparent object of stimulating him to a jump. In other cases the rider rode with an extremely loose seat, sliding all over the horse's back, from the rear of the cantle to well up on his neck, and although these peculiarities did not count against the horse on account of there being no marking for form, the evidence of the scores was that no good result was obtained thereby. Although we had one or two refusals, as in the case of Enchantress, and one or two cases where the horse ran out and had to be brought back on to the track, as in the case of Cygnet, Poppy and Regent, yet the behavior of our animals was on the whole excellent, and at no time gave any cause for ridicule. The riding of our officers was admittedly excellent without exception; there was no single instance in which even a stirrup was lost or the seat in any way deranged. The spirit of the audience was always sportsmanlike, and any good performance was received with liberal applause. The horses did not appear to be annoyed or dazzled by

the lights, the brilliant flower beds or the movements of the brilliant costumes of the ladies in their seats around the ring.

Although one of the French officers was seen on several occasions to throw his reins loose as the horse rose to a jump, yet this appeared to be a spectacular play made only on one particular horse, and this same officer, as all the others, usually manipulated his reins throughout the whole course, giving and taking, and changing his control, the movements of the hands being entirely independent of the seat and balance.

A word as to the methods by which the winning nations had schooled their horses for the work. We had a good opportunity of observing the Russians on their arrival at Preece's stables. Their horses were very high-class animals, of apparently great intelligence and highly trained. They jumped without the use of wings, the gate or other obstacle being held in the middle of the hall by a trooper standing at each end, and holding on the farther side of the obstacle one end of a rapping bar. This was a pole about one and one-half inches in diameter, around which was wound spirally a leather strap. Through this strap projected about a quarter of an inch the points of a row of blunt tacks. When the animal cleared the jump without touching he was patted and, as a general thing, ridden out of the ring and returned to his stable. If he touched, however little, the troopers raised the rapping bar so that it struck him on the belly or on the legs, punishing him about as severely as the striking of a prickly hedge would have done but without doing him any injury or involving any cruelty. His rider at the same time spoke to the animal sharply and brought him back for another jump over the same obstacle. The second time he would usually make a clean jump, but if not he might be brought back for a third or fourth trial, with attendant punishment from the rapping bar. These Russian horses were so perfectly under control that the rider was able to prevent their avoiding these obstacles, even without the assistance of wings. When the horse did refuse, he stopped short with his nose against the gate. The rider then held him in that position, steadied him, and backed him straight away to the extremity of the hall, and put him at the obstacle again under the whip. The animal was not allowed to turn around in coming back from

the obstacle in order to leave the straight track that he had followed in approaching it. The work was done rapidly and with a dash, one horse being ridden after another, and the morning's exercise was thus finished in a very short time, to be repeated probably in the afternoon.

The French and the Belgians, and some of the Germans and English, also used the rapping bar in the alley-way at Olympia over portable obstacles which they had brought with them for the purpose. A modification was the use of a one-inch light iron gas pipe as a rapping bar. This gave a sharp blow, but was too light to do any damage. Its merit seemed to be that it was so inconspicuous that the horse did not notice it when jumping at the white painted gate, and that the rap he received probably led him to think that he had struck the gate itself, and impressed him with the idea that the obstacle was higher than it appeared to be. Both the French and the Russians had mechanical appliances for raising this bar with greater accuracy and precision than could be obtained by hand. These were supports running up and down in hollow posts and raised by means of cords (running over pulleys), led off to one side, where they were manipulated by an attendant.

In the early days of the show, when the Russian horses were attracting great attention by their fine work, I asked one of the Russian officers how they had selected their mounts, and he told me, perhaps with more or less humorous intent, that they had started in with a lot of horses capable of jumping six feet and then by careful work trained them to jump five, meaning that they had placed more importance upon certainty of performance than upon occasional brilliant work. This was borne out by the record of the work of their horses, for though even the best, the winner of the King George Cup, made a bad performance the day after the perfect one that won the prize, yet these off days were rarities.

Altogether, I think that the showing made upon our first attempt is not at all discouraging. With a year to correct faults in training, I do not see why some of the same horses that we used this time should not be probable winners in another contest. It may be found, of course, that some of them cannot be trained to jump at a slower speed, but I think that if they are

all put through a thorough course of charger schooling and brought under perfect control, it will only be an exceptional one that does not respond with an improvement in his jumping record.

Our riders, at the same time being relieved of the preoccupation as to the absolute mastery of their mounts, will be free to study the more delicate manipulation of the reins and the more perfect balance of the seat at the jumps. The Russian officers all used a peculiar saddle which they told me they had copied from the Italians. The panels of this saddle are very thin, and allow the rider to get his knees and legs into the horse's side, but in front of the knee and above it the panel was thrown suddenly outward by a padding six inches thick between the front of the panel and the horse's shoulders. By long use the leg of the rider had formed a depression in this panel, in which the knee moved as in a ball and socket joint, giving a perfectly fixed point of support and enabling the rider to keep clear of the saddle and preserve his balance with more security, perhaps, than in the ordinary saddle.

I am not satisfied that the advantage of this saddle is important, but as a matter of interest and in order to experiment with it I have had it copied by one of the best London saddlers, and have brought it over for a thorough trial.

The Italians were not officially represented in this contest, although one Italian officer was riding in civilian dress, and, in the Canadian Cup Contest, in uniform.

### HUNTERS, CHARGERS, ETC.

In the competition for qualified hunters (to jump) to carry from 168 to 196 pounds, Enchantress and Ottawa were awarded commendation, with white ribbons. In this competition, although the horses were required to jump two four-foot brush fences and two four-foot post and rails, performance to count 50 per cent and conformation and manner 50 per cent, yet small consideration seemed to be given to performance, the certificate of the master of hounds that the animal was qualified and conformation and manners being given great weight. It seemed to be a fact that size was a great advantage, as even in middle

weight and light weight classes the big horses seemed to get the ribbons.

In class 75, riding horses over 15.1 capable of carrying 196 pounds, Chiswell was awarded the green ribbon and fourth prize of five pounds.

After watching the performances of the foreigners, our entries for class 105 (jumping competition, two officers jumping abreast), we scratched our entries, as we had not had sufficient time or facilities for schooling for simultaneous performance. Similarly, after watching the first competition for the high jump, which was won by a clean performance over seven feet, we scratched our entries. It is believed that by specially schooling Roustabout we might have done fairly, but at the expense of his performance in contests for our main objectives, the kings' cups. We would in no case have taken the blue ribbon at the high jump.

In the officers' charger classes the ribbons were given to parade horses distinguished for beauty, fire, style and size rather than for training. The fact of one horse being unable to change lead without coming to a halt seemed to be entirely overlooked by the judges in awarding the ribbons. The competitors entered the ring together, and moved around the track for some ten minutes, while the judges looked them over; they then sent out of the ring all but fifteen without any trial as to their schooling. Our horses were among the rejected. The others were then called upon in turn to give a few minutes' exhibition of their training, changing lead and showing that the horse was not afraid of the saber. Some of the horses were handsomely caparisoned with silver mounted bridles, horse tails on the throat latch and hussar trappings, and some of the officers carried the saber. The first prize in the light weight charger class went to a German horse, the second to a British horse of the Life Guards, the third a German, fourth a German, fifth a British of the Royal Horse Guard, sixth a British, with commendation for three British horses, one German and one Russian.

The success of the German horses in the charger classes was made the subject of a congratulatory announcement by the German Emperor. On a later day, as a special compliment to

the King, who was present, the Germans gave a riding display which they had prepared for class 84, in which they exhibited twelve perfectly trained remounts, said to be from the Emperor's stable, and ridden by twelve instructors from the Hanover Cavalry School. This performance was of such a high class that all the other nationalities immediately scratched their entries from the riding display, leaving the Germans alone in this field. As an illustration of the perfection of the training of these twelve horses, it may be noted that while they were cantering to the right on a circle they executed right about by trooper, and maintained the false gallop on the circle for one complete round before they changed to the true gallop simultaneously at command. The seat of the German riders in this exhibition was not, however, favorably regarded. The body was bent forward at the waist, the knees carried to the front and the heels to the rear, giving what was considered a stiff, unnatural appearance, although every rider conformed perfectly to the model adopted. It was noticeable, however, that in the jumping competitions the officers did not use this rigid seat, and that their style resembled that of the French.

# THE INTERNATIONAL HORSE SHOW AT THE HAGUE—1911.\*

### BY CAPTAIN GUY V. HENRY, U. S. CAVALRY.

HAVE the honor to submit the following report of the International Horse Show, held at The Hague, Holland, July 2d to 9th, 1911:

This show is in its ninth year, and is under the management of the Society for the Improvement of Horse Breeding in Holland, Colonel K. D. Punt, of the Holland army, being President, and Mr. Van Hoboken, General Manager. Both of these gentlemen were very kind and courteous to me.

The show is an open air affair, being held in a large paddock about 250 yards by 150 yards. This paddock is surrounded on two sides by spacious grandstands and on four sides a light white rail fence three feet high. Outside of this paddock is a large exercising ground and long frame stables used by the Show.

The harness and saddle classes were about the same as in most shows. The military classes, jumping and charger, were, however, quite different.

### JUMPING CLASSES.

Of these, there were eight individual ones over the regular course, one for teams of three officers of each nationality over the course, and one high jump.

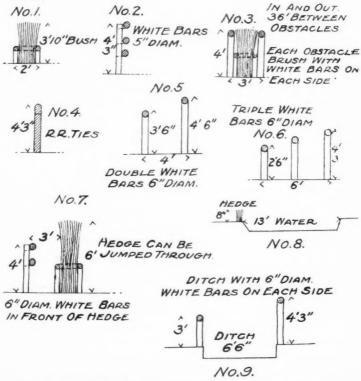
The average number of entries for individual classes was 35, with officers representing England, Canada, Holland, Belgium and Germany. Five prizes were given in each class. All were cups or medals, averaging in value from \$80.00 for first prize down to \$10.00 for fifth prize, there being four or five of these fifth prizes given.

<sup>\*</sup>Extract from report made to Major Frederick S. Foltz, Fifteenth Cavalry, in charge of the Olympia Team.

The rules for scoring were about the same as usual, with the following additions: "Riders will be expected to take the jumps at a fair hunting pace. Too slow a pace may be counted as one-half a fault, stopping between two jumps two faults."

"Making the same number of faults, the rider wins who went over the course in the shortest time."

• One end of the jumps was placed against the enclosure fence three feet high; on the other end was placed a flimsy wing made of a little strip of wood one-half inch by one and one-half inches and eight feet long; a few potted plants placed under this strip. This wing was considerably lower than the jump proper. Thus the fence on the outside and the little strip on the inside formed wings averaging a foot lower than the obstacles themselves.



OBSTACLES AT THE INTERNATIONAL HORSE SHOW AT THE HAGUE.

While the positions of the above obstacles were changed from day to day and some exchanges were made, their character remained the same. All were built in a substantial manner, and rather hard to knock down. Light strips were, however, laid on top for the purpose of scoring touches, the knocking off of one of these strips being a touch.

The riders started at a line, time being taken from this line

until the last jump was crossed.

The riders as a rule took a rather slow, free gallop. Where the pace was increased to a fast gallop, the horses as a rule lost points by tipping their jumps. All, however, rode fast at the two center jumps in order to clear them.

Horses that jumped the wings instead of the obstacle were given a refusal, the judge at the obstacle calling the rider back

for another trial.

As a rule, about one horse in each competition would make a clean score, two horses would make one fault each, and the average horse would make about eight faults.

The course was thoroughly practical and eminently suited to officers' chargers. It was, however, intended for the best of them, for it was a hard course to ride. Each obstacle required a different speed; obstacles Nos. 7, 8 and 9 required considerable speed and the turning of the horse away from the entrance or stable. These conditions, together with the absence of any practicable wings, required constant control of the horse.

The work of both riders and horses was very good indeed, but not of such a high order as at the Olympia.

### CHARGER CLASS.

Conditions: Must be broken chargers.

The following scale of points will govern in judging:

30 points for horse and its paces,

50 points for breaking and manners,

15 points for jumping.

5 points for standing music and firing.

There were eighteen entries in this class, the type of horses being entirely different from the corresponding classes at Olympia, in that these animals were presented for their service qualities while those at Olympia were presented for parade qualities.

Conformation was judged as usual.

In breaking and manners each rider was brought into a small enclosure and given five minutes in which to demonstrate his horse's training. Some riders did practically nothing, while others put up beautiful exhibitions, covering the following:

The walk, trot, canter and gallop; changing gaits; circles and figure eights; two track work; backing; turning on haunches; leads in the gallop; changing lead and the counter gallop.

Jumping was judged by putting the horses over three of the regular jumps in the diagram given.

Music and firing by the beating of a drum and firing of a pistol in the vicinity of the assembled horses.

The winning horses were beautifully schooled and thoroughly serviceable animals, mostly of the heavy charger type.

One English and one American horse (N. G., N. Y.), which had just won ribbons in the charger classes at Olympia, apparently received little consideration as chargers from the viewpoint of the Continental judges.

The ribbon winners were of the service type that we have recently been attempting to select in our horse shows.

The prizes given were similar in number and value to those given in the jumping competitions.

### RACES.

One afternoon of the Show was given over to races. In addition to harness races the following were held and were taken part in by many of the horse show participators:

Steeplechase, Officers, 3,200 meters, \$200 and cup, \$30, \$10.

Paper hunt, over steeplechase course, Officers and Gentlemen, 2,400 meters behind a leader. A halt was then made and the field divided into two classes for a flat race finish of 600 meters.

First class, thoroughbreds and halfbreds that had been raced, \$40, \$16, \$10.

Second class, halfbred horses, \$40, \$16, \$10.

These races were excellent and the riding displayed in making the finishes of a very high order.

In the paper-chase, about thirty started and were required to stay behind a leader for 2,400 meters over the steeplechase course. A halt was then made, and the horses divided into two classes for the finish. The leader set a very fast gallop for the 2,400 meters and also finished third in the flat race of the first class. This leader, by the way, was one of the winning charger horses.

This type of race has much to commend it for our service, where we are beginning racing. The leader can set a fast or slow gait, as is best adapted for the horses and riders. In this way the riders can be taught pace and how to control their horses and jump in a crowd. It reduces to a minimum the danger of novices jumping at speed, but gives the element of a race by allowing a flat race at the finish. There is no necessity for halting before the start for the finish if all the horses are of the same class. Instead of halting, some point is fixed after crossing the last obstacle where all the riders may come abreast of the leader and get a start for the finish. The leader, however, should drop out after giving the word "Go," as in this case he would have an advantage over the others.

This type of race is used on the Continent for teaching steeplechasing. It was used at the Mounted Service School in 1908 with both interest and success.

The Hague Horse Show was both interesting, instructive and practicable. Its jumping contests, charger classes and races are suited to our conditions and worthy of adoption; also most cavalry posts have the facilities for carrying them out, the parade ground for the show and the drill ground for the races.

If an American team again goes to the Olympia Horse Show, I should suggest that it also visit The Hague, principally as a matter of education for officers. The show is held about one week after the Olympia. The financial condition of the Show will not permit of their giving financial assistance to visiting military teams. The cost, however, of transporting a team from London to The Hague and return to London would be comparatively little. For horses and grooms, about \$17.00 each. Hotel accommodations for the officers would be about the same price as in any large city. The duration of the show is usually nine days. Stabling is \$5.00 per horse for the entire period and forage about 30 cents per day per horse.

# HISTORY OF THE McCLELLAN SADDLE.\*

By CAPTAIN EDWARD DAVIS, THIRTEENTH CAVALRY.

I T is said that the very complete revision of cavalry equipment, which is now approaching its conclusion, will result in the disappearance of the McClellan saddle from our list of equipment. If this be so, it is appropriate to recall certain interesting facts regarding the origin of the McClellan saddle and its long career of hard service.

From old documents it appears that a board of officers, convened in 1847, adopted what was called the Grimsley saddle, which appeared to serve with considerable satisfaction until approximately 1855. About that time there appeared on the scene a number of gentlemen, each of whom had invented or designed a saddle which he deemed entirely worthy of adoption for use by the cavalry of the United States. Among these were the Hope saddle, which found favor in Texas; the Campbell saddle, which was adjustable by springs, and the Jones saddle, which was adjustable by the use of hinges. These rival claimants appeared to possess business ambition in connection with inventive genius and the War Department was persuaded to purchase, for experimental purposes, several hundred saddles of the above mentioned varieties. At the same time, Mr. Grimsley, who had been furnishing the Government with the saddles which bore his name, did not neglect to remind the authorities that they ought to stand pat and not abandon his saddle for any of these new models.

Just about this time the saddle competition was intensified by the introduction of a model which was presented by Captain George B. McClellan, First Cavalry, who was later to gain distinction as a Major General. Captain McClellan had just re-

<sup>\*</sup>The procurement of certain data, indispensable to the presentation of this subject, was greatly facilitated by the interest taken in the matter by Brigadier General Alfred Mordecai, retired.

turned from a tour of Europe, where, as one of a commission of officers, he had observed the operations in the Crimea and had also made an extensive study of the armies of Europe. In addition to his saddle, he suggested new models of other articles, and, after consideration by a board, an ample supply of the saddles and other articles was issued to the service for purposes of experiment and comparison.

To show the extensive tests carried on by the Ordnance Department in order to select the best saddle out of the varieties above mentioned, the following quotations from reports\* of the Chief of Ordnance are pertinent: "October 25, 1855. The duty of furnishing horse equipment having been transferred from the Quartermasters to the Ordnance Department (G. O. 5. W. D., 1855), these articles now come under the designation of ordnance stores. \* \* \* \* For the purpose of testing practically the merits of different patterns of horse equipments, the cavalry regiments have been supplied with those known as Grimsleys, and also with those prepared after the pattern of Campbell—the latter having been examined and recommended by a board of cavalry officers." And the following about three years later: "July 19, 1858. \* \* \* I may add that there is no regularly prescribed pattern for cavalry or dragoon horse equipments, the various patterns in use, viz.: Grimsley's, McClellan's, Jones' (Campbell's ?) and Hope's, being all experimental. \* \* \* It seems proper that the pattern should be selected by a board of officers of rank and experience representing each of the five mounted regiments \* \* \* ."

As a result of the experiments above referred to, which were carried on during the four years 1855-58, a board of officers was convened in January, 1859, to make a final selection of a service saddle and appurtenant equipment. The three senior members of this board were Colonel Philip St. George Cooke, Second Dragoons; Lieut. Colonel Robert E. Lee, Second Cavalry, and Lieut. Colonel Joseph E. Johnston, First Cavalry, an array of recognized military ability which compels confidence. This board, after examining and experimenting with the various saddles above referred to and after considering the reports of

<sup>\*</sup>Ordnance Notes No. 2.

officers covering experiences on marches of 1,000 and 2,000 miles, decided to recommend the McClellan saddle. The War Department approved the recommendation, and thus, after four years' experimentation with five different kinds of saddles, the McClellan was adopted and its service career of more than half a century was initiated.

The origin of the McClellan saddle has at various times been vaguely characterized as "Crimean," "Russian," "European," etc.; but no facts have been presented-at least not in recent years—in substantiation of these vague allusions. From one who is best situated to know General McClellan's personal claims as to the origin of this saddle, we learn that: "he always claimed it as his own invention," but whether it was a modification of a European saddle is not positively known. In a letter referring to his models of saddles and other articles, Captain McClellan said under date of December 25, 1856: "I cannot pretend to say that this equipment is by any means perfect, but I feel safe in asserting that it is an important step in the right direction; that it is not a copy of any European model and that it is superior to any equipment I saw in Europe. I am content to allow it to rest on its own merits, and I believe that it will, in its most important points, meet the approval of our cavalry officers." In the same letter, after referring to a method of girth attachment which he then favored, he said: "I am not aware that we are indebted to any foreign model for any other part of the saddle"; and again, speaking of the shelter tent, "it is made rather larger than those used in Europe," and, with reference to the curb bit, "it is a modification of the Russian"; further, with regard to a girth, "the idea \* \* \* is derived from the French."

By carefully analyzing the above quoted statements from the letter of December 25, 1856, as they stand, we find that the following is proved, viz.: The McClellan saddle, and its appurtenant equipment, as presented, was not a copy—viz.: not an exact *reproduction* of any European model, but that the idea of the girth was from the French, the bit a modification of the Russian and the shelter tent similar to but larger than those of Europe.

A logical inference from the above is that Captain McClellan's European observation may naturally have influenced his ideas as to saddle construction even if his saddle was not actually copied from any European model. It was likewise natural that he should have made his letter somewhat aggressive in its pointed exclusion of things European, because from other documents of those days it is apparent that there was some criticism of the proposed McClellan saddle because of its suspected European origin. Then, as now, there flourished in our midst an admirable and modest brand of patriotism which assumed that all things American were, per se, superior, and that anything European should be disdained as of tainted origin.

As everyone knows, any saddle of worth must embody a number of good points taken from saddles of prior origin. The question arises then: What saddle did Captain McClellan have in mind as the one upon which he could best base his ideas of improvement? Let us search further and take up "The Report of Captain George B. McClellan, First Cavalry, one of the Officers sent to the Seat of War in Europe in 1855 and 1856," published as a Senate Document in 1857. This report, in addition to a review of the Crimean operations, includes a series of valuable observations on the armed forces of France, Great Britain, Russia, Austria, Prussia and Sardinia, as well as certain recommendations regarding the army of the United States. Under this latter head, on page 283, we find: "I would recommend that the shelter tent be adopted as a part of our system. specimen, slightly altered from the French, will be submitted with the saddle shortly to be forwarded."

Studying the observations on the cavalry of the European nations above enumerated, we find reference to equipment in each case, but only two saddles are described in detail. One of these is the Hungarian saddle, a type which is of no interest in this particular research. On page 246, under the discussion of French horse equipments, we find the following remarks and the sketches which appear next below: The new saddle (*i. e.*, new in comparison with another French saddle) is the invention of Captain Cogent, director of the saddle factory at Saumur. The tree is cut out of a single piece of white wood, the cantle only being glued on; a piece of walnut, the grain running across the tree, is let into the pommel. \* \* \* The whole is covered.

with wet raw hide, glued on and sewed at the edges; no iron bolts or fastenings are used."

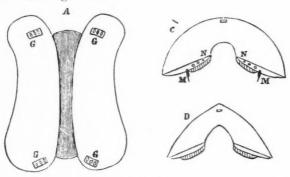
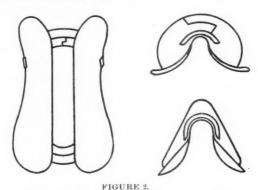


FIGURE 1.

Side Bars, Cantle and Pommel of Saddle designed by Captain Cogent, Saumur. (McClellan's Report, page 246.)

The earliest official description and drawings of the McClellan saddle are thought to be those contained in the Ordnance Manual of 1861, and are here reproduced:

"Saddle-tree—wood (beech); 1 pommel, made of 2 pieces framed together at top and glued; 1 cantle, formed of 2 pieces like the pommel; 2 side-bars (poplar), each made of 3 pieces glued together. \* \* \* The tree is covered with rawhide, put on wet and sewed with thongs of the same and held in place by stitches through the wood along junction of the pommel and cantle with the side-bars, etc." \* \* \*



McClellan Tree. From Ordnance Manual of 1861.—Plate 22.

A comparison of the preceding sketches and other data, together with a consideration of all the circumstances, leads us to the conclusion that the McClcllan saddle may have been suggested by the saddle of Captain Cogent of Saumur. This fact—or coincidence, as the case may be—is a welcome though rather unexpected addition to the growing association between our service and the famous French school of equitation, the methods of which are being incorporated to a great extent into our own general scheme of instruction.

An important feature of Captain Cogent's saddle, which certainly was not incorporated into our service saddle, was his manner of arranging it so that a single size would suffice for all horses, or for the same horse as his condition of flesh varied. This was effected by attaching to the under surface of each side-bar a thin strip of cork which was faced with a layer of felt on the side next to the horse and by a leather pocket or flap on the side next the saddle. Lateral and longitudinal adjustability or changes of fit were attained when necessary by inserting additional strips of felt in the leather flap. Looking back from the present vantage point of increased experience and information, it is apparent that our service saddle would have given better results if it had been equipped with felt pads for the side-bars.

The writer has made considerable inquiry with a view to discovering the original model of the McClellan saddle in order that the above and kindred questions might be further investigated. Departmental museums and similar repositories offered no trace of the original tree, but it was discovered that the model was undoubtedly manufactured by the firm of Lacey & Philipps of Philadelphia. This clue ran out in the discovery that Lacey & Philipps went out of business about forty years ago and that all traces of their product had disappeared in the obliterating growth of a great city. Possibly these lines may be read by someone who can provide the desired information.

In 1879 the McClellan saddle had a narrow escape from elimination. The Equipment Board of that year (see G. O. 76, 1879) recommended that the McClellan be discarded and the Whitman substituted. They remarked: "\* \* \* the board, while remembering that the McClellan tree has been of great

service, is satisfied that a change is now necessary. This conclusion is due in a measure to the experience of the board, but chiefly to the opinions of a great number of officers who are riding saddles of various kinds. \* \* \* The board has endeavored to find a saddle combining the merits of the various trees now in use. This, it is believed, has been done in the selection of the Whitman tree. \* \* \*" The Chief of Ordnance did not favor the board's recommendation, stating: (1) that no reports condemning the McClellan saddle had reached his office, and (2) that 42,000 new McClellan saddles were on hand, left from war supplies.

General Sherman, commanding the Army, reviewing the board's proceedings, recommended the adoption of the Whitman saddle "for experiment, and for general use when the present stock of 'McClellans' is reduced below 20,000." The Secretary of War directed: "The Whitman saddle tree will be deposited with the Chief of Ordnance and in future manufacture will be adopted as the model." He also remarked that the large supply of horse equipments on hand would necessitate their use for some time to come.

Officers now in the higher grades recall that Whitman saddles were issued, some with a horn on the pommel and some without. That the Whitman saddle, as then provided, did not firmly establish itself as equal to the conditions prevailing at that time, is inferred from the fact that the McClellan pursued the even tenor of its way. The board of 1884 evidently considered that the McClellan was doing well enough to be let alone, as they contented themselves with a few minor changes, principally in the seat.

During recent years, apparently since about 1900, the complaints against the McClellan saddle have increased in volume and intensity. Possibly the considerable addition of new officers, new men and new horses resulting from the changes and increases incident to the Spanish War and the subsequent reorganization may have created conditions which accentuated the actual defects of the McClellan saddle and caused a demand for improvement—a demand which is formidable because it is backed up by facts.

So it seems we may prepare to take leave of this good old friend—for good old friend it has been to many loyal, brave and finished cavalrymen. For more than half a century it has carried our cavalry, in every variety of climate, temperature and terrain, through five wars aggregating some thirty years of service in the presence of an enemy. It will go, not as a result of mere craving for change, but after a searching investigation seeking improvement founded on the flinty stones of fact.

In extending the glad hand to the new let us bestow no kicks upon the old, for we shall thereby unwittingly betray ignorance of an honorable record. Some years from now you and I may come across a McClellan saddle in an unfrequented corner of a dusty museum. It will bear a tag on which he who dusts may read its name and the period of its service. Let us then add to that tag the words "Well done, thou good and faithful servant."

# THE BEST COLOR FOR HORSES IN THE TROPICS.

By LIEUTENANT COLONEL CHARLES E. WOODRUFF, MEDICAL CORPS, U. S. ARMY.

CINCE the publication in 1905 of the book, "The Effects of Tropical Light on White Men," a persistent search has been made for data which would confirm or disprove any of its statements. A few facts were unexpectedly encountered of more than ordinary value to horsemen in the tropics, and it is with a view of eliciting exact statistics that this paper is written. If practical experience confirms the theoretical deduction from the facts so far known, it means that an increased efficiency and a very great saving will be possible by selecting proper colored horses, mules and draft cattle for the tropical stations. Before giving the facts, we must briefly explain the general principles governing the natural selection of animal colors. They are detailed in the above book in a manner not possible here, and it may be stated that among the thousands of notes made in the last six years, there are none which disprove any of those generalizations and though several minor matters might be changed there is only one gross error in the book—that part advising sunshine in tuberculosis, for subsequent investigation failed to reveal any proof that light does good and much evidence that if excessive it does so much harm that the results are the best in cloudy mountain places like the Adirondacks; especially in the least pigmented cases.

Every character of a "species" such as color or size is now known to be a result of natural selection of the fittest variations and the destruction of those unfit for survival. Consequently every species is limited to a very restricted environment and is injured or killed if it emigrates to another place where there are adverse factors against which it has no defenses. So we have ceased to consider "characters" as useless, much less harmful, and when we do not know the use, it is our problem to find it. In particular the coloring of animals has been receiving very much attention of late, as the subject has been found to have enormous agricultural economic importance.

The longest known use of color is concealment through resemblance to the background. No one on the yellowish plains, for instance, can see a coyote until it moves, or a white animal on the snow, or a red or green parrot among the red and green flowers and leaves of a tree. Domestic animals have no such needs, for man guards them, and this side of the matter may be dismissed from the discussion. From a military point of view, of course, conspicuous horses are undesirable as they draw fire, and for invisibility we should have those which most closely resemble the color of the average landscape, and luckily that color is the dun or sorrel as later explained. There is even a report that in the South African war, the white horses had to be dyed a neutral tint.

Over 25 years ago Dr. Robert Wallace, then as now Professor of Agriculture in the University of Edinburgh, made the significant discovery that the skin of all domestic animals in the tropics was black, no matter what the color of the hair, white skins being the rare exceptions; hippos, rhinos, elephants, and all the antelopes except the bush-buck which lives in the shade of trees and is much lighter skinned than the others. Huxley and Helmholtz both acknowledged it to be a general condition but could not find the cause. Wallace himself tried to explain the matter at a meeting of the Edinburgh Royal Society, Dec. 9, 1887 (see Proceedings, p. 64, Vol. XV.), but at that time little was known of the lethal effects of light, and the phenomenon was considered solely a benefit in heat radiation. We now know that light rays are fatal to every form of living substance on which experiments have been made, and that every animal is protected by skin pigment, hair or feathers;-even plant cells are killed if naked, like a bacterium, so they too are pigmented or shaded by hair or bark. The delicate filamentous rootlets are in the dark of course and few people realize how the light kills them. White ants are killed by light and they too must live in the dark, and finally many unprotected animals, mostly insects,

can venture out only at night. So the black skin pigment of tropical animals is a protection against light.

Not all kinds of light have an equally injurious effect, for their power varies with their wave frequency, the ultra-violet being the strongest; but they all have some effect and even the weakest or red and infra-red are deadly if strong enough. Even in the far north, where there is supposed to be less light, the snow glare is really terrific, but none of it can penetrate the thick white coats of the arctic animals, and the exposed surfaces like the tip of the nose and the retina are heavily pigmented. Insufficiently pigmented men in the arctics are severely sunburned and also suffer from serious eye diseases due to the excessive light, while the pigmented Eskimo escapes.

It is necessary to keep in mind the reasons for variations in light according to latitude and elevation. The air itself is not entirely transparent, and in addition it is made still more opaque by its suspended solids and dissolved water vapor, so that the more oblique the sun's rays the more air they transverse and the weaker they are, and the rays are of course much stronger in the upper atmosphere. A great many actinometric observations have been made abroad (see La Lumiere et La Vie by Dr. Thomas Nogier) and they show that until the rising sun is 10 degrees above the horizon it has scarcely any actinic effect and even after it is above 10 degrees its effect increases very slowly until it is 65 degrees high, after which it augments very rapidly, being of course at its maximum at the zenith. We consequently find that more than half of the total light at any place is received between 10 a. m. and 2 p. m. and more than seven-tenths between 9 a. m. and 3 p. m. For some unknown reason the amount of light transmitted by the air varies slightly with the temperature, so that hot days are really lighter than cool ones, other factors being equal, and for equal sun elevations the afternoons are lighter than the mornings.

In high latitudes, therefore, where the sun's rays must travel obliquely through a long distance of air, the actinic effect is proportionately less, often too little to do the chemical work in plant leaves even if the temperature is high enough. Nevertheless, it often happens at any one place, that though in summer, the light is greatest, most of it is absorbed by the green vegeta-

tion around us, but that in winter though the sun is least intense more of it is reflected from the snow into our faces, as though we were looking at the sun itself. The Eskimo therefore needed more pigment protection than the forest-living New England Indians. The noon sun in midsummer in Chicago is about 20 degrees from the zenith and is about as strong as the December noon sun on the equator, facts which must be kept in mind in discussing climate. Even at Edinburgh at 56 degrees the summer noon sun is 33 degrees from the zenith and has nearly the strength of the midwinter sun in the northern tropics, for equal cloudiness, but the north has strong light only a very short time and the tropics all the time and of greater power. The number of possible hours of sunshine is practically the same the world over, only at the north pole it is in one long day and at the equator in 183 periods of 12 hours each.

For these reasons the blackest pigment is needed and the blackest animals exist near the equator, and as these places are also hot the animals are at a very great advantage in another respect, for the laws of radiation show that black surfaces radiate heat to cooler bodies very freely but white ones do not. All these animals therefore are much cooler for their blackness when the air temperature is less than that of their bodies, as usually is the case in the tropics where the air is never at blood heat in natural conditions. But black animals are at a fatal disadvantage where the surroundings are hotter than they are, for by the laws of absorption dark bodies absorb heat very freely in such conditions, the familiar black tea kettle heats up and cools off sooner than the bright tea pot. To avoid the danger, black animals hide in the day time; -some are nocturnal and hide in caves like the cat family, or in shaded jungles like elephants or in water like the hippopotamus and carabao. If we force them into the heat, they suffer from thermic fever with more or less delirium—a familiar sight with carabao if they are not allowed to bathe every two hours.

A wild animal that must go forth in the day time has another protection,—a thin hairy coat of light colored material to reflect as much of the sun's rays as possible. The most effective is white and this color is quite common in tropical birds,

cattle and horses, but the usual one is some shade of yellow—a most important provision for horses, as we will later show. Feathers of all colors, even white, being opaque, there is no need of skin pigment in birds. I have no data as to skin color of fur or wool clothed animals, but believe that it is generally white, for the light does not penetrate the coat.

The amount and kind of clouds are most important considerations, for they may reduce the light very materially if they are between us and the sun, but increase it if so situated and fleecy that they reflect more sun's rays to us. Sky glare is sometimes found to give more light than the sun itself, so that the total light received may be much greater than if the sky was cloudless. Thick mist, fogs and clouds are very effective in excluding light, and as the northwest corner of Europe is notoriously cloudy and foggy, it is found that the domestic animals developed there, have so little need of pigment that some of the breeds have "white" skins, which are never colorless, by the way, for the red blood shines through as a rule and somewhat protects the lower tissues. Nor are they albinos either, for they have pigment where needed—in the eye, for instance. They have simply stopped forming skin pigment because the light skin is a tremendous advantage in conserving body heat in cold surroundings. Arctic animals are the warmer during the long nights for their white coats, and as they cannot get any sun's heat in the days, they do not need "warm" dark clothes. Similarly a white hog will thrive where a black one will freeze and a white man also thrives in cold where a negro cannot. It must be noted that the blackest men and the blackest animals can not and do not exist in the hottest parts of the earth.

The black animals are thus very much more restricted as to range of temperature than white ones, for they can stand neither heat nor cold. It is a mistaken idea that the negro can stand heat that is much higher than that of his blood, for in such conditions as fire-rooms he absorbs heat and suffers much more from thermic fevers and allied conditions than the white men working with him, and our statistics show that black soldiers have much the highest percentage of cases of both frost bite and sun stroke. In his natural home he is mostly nocturnal and

the air is rarely over 90 degrees; at least he avoids the midday sun, and when he must go abroad he dons white clothes like the Arab. The black horse shows the same temperature restrictions as the black man, for it cannot stand the cold like the light colored horses of cold countries, and needs warmer stables and more blanketing to survive. Moreover, I find that in the tropics the black horse is more liable to "blow-up" as the teamsters say; —that is, on a hot trail it gets thermic fever with more or less delirium and dies where the white horse is comfortable. But in moderate temperatures, below blood-heat, black men and black animals are at a great advantage. There is not only much evidence that in cold conditions, both black men and black horses are more easily "chilled" but both suffer more from "colds" and pneumonia than the lighter colored. On the other hand Captain A. C. Nissen informs me that at Camp Stotsenburg in 1902-3 he commanded a troop mounted on beautiful sorrels which had been personally selected and brought over by General Earl D. Thomas, and that it was remarkable how well these horses retained condition while the dark bays and blacks were having a dreadful time with surra and all other diseases. This was due to better fitness of sorrels to the hot climate, for there is no evidence that disease-bearing insects are attractive to one color more than another; though that is a point deserving further investigation.

Now all our domestic animals except the turkey, an American product, the cat, an Egyptian, and Arabian horse, come directly from this cloudy northwest corner of Europe where they have been for thousands of years, and even the Arabian horse is probably a variety of the European breeds. Remotely all the European domestic animals including the cat were domesticated in Asia from wild species and imported into Europe or Africa, in neolithic times (see Williston in Pop. Sc. Mo., Dec., 1910). Though they may have been protected from light originally they have largely lost the skin protection, in a cold cloudy environment which made it not only unnecessary but an actual disadvantage. Agriculturists are therefore just beginning to realize that these white skinned animals fitted for cold dark climates will not thrive in light places.

Professor Starling of the University of London called at-

tention some time ago to the fact that the northern white skinned horse will not survive the tropics where the whitehaired black-skinned Arabian thoroughbred thrives. The Honorable W. M. Hays, Assistant Secretary of Agriculture, informs me that they have never succeeded in establishing the whiteskinned northern hog in our south, where the black pig thrives. Professor D. A. Gaumitz of the University of Minnesota reports a similar difficulty in the sunny middle west,\* and Professor G. A. Morton of the Colorado State Agricultural College writes that in the intense sunlight of the far west, "white hogs sun scald severely. In many cases, the entire back-from head to tail-will be severely inflamed and covered with scabs and scurf. This affects the well being of the animal so that it is difficult to keep white pigs thrifty and growing. We now advocate in this State only black or red hogs for the reasons given above." Long ago Darwin found that the white pig dies out in a few years when crossed with the black.

Recently I have found that white skinned northern hogs will not thrive in the Philippines and one raiser actually kills all white ones in a litter. Similarly, white skinned bull-terriers and fox-terriers are short lived in the tropics and subject to all kinds of diseases, even when given the utmost care. They are being

"The same observations have been made of Chester White hogs here in the state and it is believed that these are not more popular than they are on this very account,"

<sup>\*&</sup>quot;The large improved Yorkshire is a white hog, both the hair and the skin. These are grown in Ontario where there is considerable foggy weather or cloudy days. In Minnesota these hogs are not grown quite as easily and in the west down through Montana, Wyoming, Colorado, and in the south where there are very few days that are not sunshiny and bright, it is impossible to grow these hogs at all. Prof. Cotterell, formerly of the Colorado Experiment Station at Fort Collins, Prof. Morton, who is there at the present time, and Prof. Carlyle, who is now at Moscow, Idaho, all noted this effect on the Yorkshire hog. These men were attempting to grow bacon hogs and to show the people the correct types. They worked with the Tamworth, a sandy colored pig, the Berkshire, a black pig, and the Yorkshire, a white pig. The Tamworth and the Berkshire did fine, but the Yorkshire hogs all became affected with some skin trouble, mange, or something similar, and as soon as affected ceased to grow. Protection from the sun helped in growing them, but the hogs never did well and they were given trials year after year with some of the best stock obtainable. Eventually the growing of them was given up entirely because they do not withstand the sunlight.

constantly imported, but do not leave a trace even in the native cur of mixed blood.

The same story is now being told as to cattle. Tropical species all have black skins, whether the hair is black, white or a shade of red or yellow, and the imported northern white skinned breeds do not flourish. The skin is subject to the same eruption in Africa as the white pig in Colorado. Even white patches of skin are a disadvantage and I find that in the Philippines they are often the seat of these same actinic eruptions, also similar to the summer eruptions on the white noses on horses as far north as Maryland. But the total effect on the unprotected organism causes degeneration and extinction. Cattlemen in such countries are constantly importing breeders to keep up the stock. Professor Wallace strongly advises that only those breeds with pigmented skins be taken to South Africa to improve the stock for milk or meat (see publication of the British South African Company, London, 1908), and strongly approves the experiment now being made by Mr. A. P. Borden of Pierce, Texas, who introduced the Indian zebu, and who now finds that their halfbreeds are bigger, fatter and more resistant to Texas diseases. (See Pastoralists' Review, Melbourne, Australia, Nov. 16, 1909, and American Breeder's Magazine, 1910.) Whether these halfbreeds can be made permanent is doubtful, as the progeny will revert to one or other type if they survive. Indeed there is abundant evidence that no such crosses can be permanent even if they are vigorous. New hereditary varieties are invariably slight modifications of pre-existing varieties and not crosses. Even "crosses" in plants are bred for "points" between close varieties and are not hybrids of widely separated breeds.

What concerns horsemen is the big generalization now being made from these facts by progressive breeders;—a domestic animal which after thousands of years of natural and artificial selection has become adjusted in physique to one set of conditions as to climate, food and care, is by that very token unfit for another set. If we want to stock up a new place with animal or plant we must secure breeds from where the conditions are as nearly identical as possible, for it takes too long to develop a new breed by selection, which must be done by easy stages extending over centuries. In fact no wild animal has

been domesticated for many thousands of years, with the exception of the alpaca, llama and turkey—all in America, and every new permanent breed we are told of, is a slight modification of a pre-existing breed which has been in the same or similar place for ages.

The horse is not a tropical animal at all, but he and all his near relatives, the asses, back to their tiny five-toed ancestor, have lived in dry temperate plains. The early stages occurred in America, perhaps, but specimens drifted to northern Europe and Asia, where they survived while the American stock was killed off by some climatic change; all our present "wild" horses are due to post-Columbian importations of domestic breeds of Europe. The pre-historic native European man used these horses for food for many tens of thousands of years, but apparently never domesticated them—perhaps he hadn't intelligence enough. There is said to be a tiny remnant of this old European horse at Ile d' Yeu, Vendee (see MacCurdy, Smithsonian Report, 1909, p. 559), but every other horse in Europe or Africa is a descendant of breeds domesticated in Asia and imported during or since neolithic times.

The very sweat glands themselves of both man and horses are evidence of early northern evolution for they permit of rapid changes of temperature and cooling off by evaporation in a dry atmosphere where hair had to be retained for protection from cold shortly afterwards. Sweat glands as a rule are not developed in moist hot countries nor in animals clothed in wool or fur, as they would be useless, or dangerous, and all such animals have other ways of keeping cool,—dogs, cats, carabao, birds, etc. Consequently northern species taken to the tropics perspire unduly in conditions where the adjusted natives have dry skins-man as well as animals. If there is excessive perspiration it is evidence of lack of adjustment, for the normal skin is dry. That is why dark skinned races of men are perfectly dry and comfortable in a moderate heat, where a white man is dripping in perspiration through inability to radiate. It is amazing how the Chinese and Filipinos, for instance, can stand the oppressive heat of their houses and shops, without a drop of perspiration in evidence. Similarly the northern horse will not thrive in a moist hot country and even when he becomes wild as in South America he cannot get within 25 degrees of the equator, but he does better in dry Australia, even in the tropical zone. In the hot sunshine, the darker the horse the more he frets and perspires, and we can imagine his feelings by donning black clothes and exercising with him.

The single hoof too is evidence of evolution in dry countries, for the split hoof is needed for support in marshy landa carabao's foot for instance spreads like a parachute and he can walk comfortably where a horse bogs down. There is considerable evidence that all the double-hoofed animals arose in southern Asia, and we know that all our domestic cattle were thence derived. When the split-hoofed animals take to the uplands for permanent residence, the hoofs in the course of ages dwindle to tiny points permitting of climbing on narrow ledges. As a side thought it should be stated that the hog is frequently born with fused metacarpals and a single hoofthe "mule-foot" hog. It is a "sport" or "mutation" which is inheritable and as it is supposed to be an advantage, perhaps from less danger of harboring infections, efforts are now being made to develop the breed in several of our western and southern states. The point of interest to us is the fact that the best specimens are black or red but not white skinned, American Breeder's Magazine, 1910.)

Now the primitive horses in their wanderings in the last two million years have frequently been compelled to change the color of their clothing according to climate and other conditions. The oldest known picture of paleolithic European horses (Smithsonian Report, 1909, p. 560), perhaps drawn 100,000 years ago, gives a distinct impression of a roan, though everywhere else in modern times the wild horse (not escaped domesticated varieties) is some shade of yellow to conceal him on the yellow plains like the covote or lion. This color is an advantage in reflecting heat in summer and conserving it in winter, the black skin beneath protecting from light. Blacks are never found, as they would freeze in winter or "blow-up" in summer. As a matter of fact the black is a fancy product of artificial selection, and a poor one, too, as he requires artificial protection in all seasons, as previously explained. Noted racers are rarely black. Sometimes black stripes were required for better concealment in the long shadows of tall grass, as in the zebra, but on the whole they are essentially light coated with black skins.

The following is a quotation from the excellent address to the British Association for the Advancement of Science by Prof. William Ridgway of Cambridge University (Popular Science Monthly, December, 1908) on "The Application of Zoological Laws to Man." It shows that in nature slight differences of climate make great differences in the coloration and type fit to survive. In domestication similarly slight differences of climate make vast differences in type and in efficiency or fitness of displaced types:

"If we follow the horse from northern Asia to the Cape of Good Hope, we shall find that every belt has its own particular type, changes in osteology as well as in coloration taking place from region to region. First we meet the old dun horse, with its tendency to become white, the best European examples of which were probably the now extinct ponies of the Lofoden Isles. In Asia, Prejvalsky's horse is the best living instance—a dun-colored animal with little trace of stripes. Bordering on the Prejvalsky horse, or true tarpan, comes the Asiatic asses: First, the dzeggetai of Mongolia, a fawn-colored animal, the under parts being Isabella colored; then comes the kiang, of the upper Indus Valley, seldom found at a lower altitude than 10,000 feet, rufous brown with white under parts, whilst, as might be expected from its mountain habitat, its hind quarters are much more developed in length and strength than in the asses of the plains. The Onager indicus, onager and hemippus are found in all the great plains of the Punjab, Afghanistan, western India, Baluchistan, Persia and Syria, whilst a few are said to survive in South Arabia. All these are lighter in color than the kiang, the typical onager being a white animal with yellow blotches on the side, neck and head. All the Asiatic asses are distinguished by the absence of any shoulder stripe, though they occasionally show traces of stripes on the lower part of the legs. The southern Asiatic asses just described in their grayer color and smaller hoofs approximate to the wild asses of Africa, especially to those of Somaliland, whilst it is maintained that in their cry, as well as in their color, the kiang and dzeggetai come closer to the horse, whose next neighbors they are.

"Passing to Africa, we find the ass of Nubia and Abyssinia showing a shoulder stripe, and frequently with very strongly defined narrow stripes on the legs, the ears being longer than those of the onager. But in closer proximity to southwestern Asia comes the Somali ass, which differs from those of Nubia and Abyssinia by being grayer in color, by the entire absence of shoulder stripes and by smaller ears, in all which characteristics it comes closer to its neighbors on the Asiatic side than it does to its relations in Abyssinia and Nubia.

"Next we meet the zebras. First comes the magnificent Grévy zebra of Somaliland, Shoa and British East Africa. It is completely striped down to its hoofs, but the coloration of the specimens from Shoa differs from that of those from Somaliland, and from those of British East Africa. The Grévy

zebra has its hoofs rounded in front like those of a horse, but its ears are more like its neighbors, the asses, than those of any other zebra.

"In the region north of the river Tana the Burchelline group of zebras overlaps the Grévy, and though it differs essentially in form, habits and shape of its hoofs from the Grévy, some of those in the neighborhood of Lake Barringo show gridiron markings on the croup like those on the Grévy zebra, whilst, like the latter, they also possess functional premolars.

"All of the zebras of the equatorial regions are striped to the hoofs, but when we reach the Transvaal, the Burchelline zebra, known as Chapman's, is divesting itself of stripes on its legs, whilst the ground color is getting less white and the stripes less black. Further south the true Burchell zebra of the Orange River has completely lost the stripes on its legs and under surface, its general coloring being pale yellowish brown, the stripes being dark brown or nearly black. South of the Orange River the now extinct quagga of Cape Colony had not only begun to lose the stripes of its under part and on the hind quarters, but in Daniell's specimen they only survived on the neck as far as the withers, the animal having its upper surface bay and a tail like that of a horse, whilst all specimens of quagga show a rounded hoof like that of a

"In the quagga of 30°-32° S, we have practically a bay horse corresponding to the bay Libyan horse of lat. 30°-32° N.

"But the production of such variations in color do not require great differences of latitude. On the contrary, from the study of a series of skins of zebras shot for me in British East Africa, each of which is from a known locality and from a known altitude, there can be no doubt that such variations in color are found from district to district within a comparatively small area.

"In addition to the two species of zebra already mentioned, there is the mountain zebra, formerly extremely common in the mountainous parts of Cape Colony and Natal, though now nearly extinct in that area. Its hind legs, as might naturally have been expected from its habitat, are more developed than those of the other zebras, just as these same limbs are also more

developed in the kiang of the Himalayas than in any other ass.

"With these facts before us, there can be no doubt that environment is a most potent factor not only in coloration, but also in osteology. No less certain is it that environment is capable of producing changes in animal types with great rapidity. Thus, although it is an historical fact that there were no horses in Java in 1346, and it is known that the ponies now there are descended from those brought in by the Arabs, yet within five centuries there has arisen a race of ponies (often striped) some of which are not more than two feet high. Darwin himself has given other examples of the rapid change in structure of horses when transferred from one environment to another, as, for instance, when Pampas horses were brought up into the Andes.

"Another good example is that of the now familiar Basuto ponies. Up to 1846 the Basutos did not possess a single horse, those of them who went down and worked for the Boers of the Orange River usually taking their pay in cattle. At the date mentioned some of them began to take horses instead, These horses were of the ordinary mixed colonial kinds, and we may be sure that the Boers did not let the Basutos have picked specimens. The Basutos turned these horses out on their mountains, where, living under perfectly natural conditions, their posterity within less than forty years had settled

down into a well-defined type of mountain pony."

A white coat is the best, both in cold and hot plains, but it is fatally conspicuous in wild species. Yet when domesticated and man protects it, resemblance to the black ground is no longer a prime necessity and the tendency is for the domestic breed to turn white in extremes of climate. The "typical" Chinese pony is milk white or gray with a black skin in a cold climate, and the Arabian breed tends to white in a hot oneand it too always has a jet black skin. The classical desert picture is a white robed Arab on a white horse, and each has a pigmented skin to keep out the light while the coat reflects the heat. I have made careful observations among the small horses of the Visayas-a curious mixture of Chinese and East Indian stocks—and I have been amazed at the enormous percentage of whites, grays, and roans, nearly all the rest being of vellow shades with few light bay. About the only healthy blacks were carriage teams which are never exposed to the midday sun. Practically all colors had black skins, there being no albinos, the alleged albinos having red or yellow skins and well pigmented eyes. Similarly there are no albino carabao, for the skin of these "white" ones is red or vellow and eyes black. It is also to be noted that the light roans bring higher prices because they keep healthier on poor food, bad care and hard work. It is very significant that the best Philippine ponies, those from Southern Luzon centering around Batangas, are believed to be decended from Arabs, introduced long ago by the Spaniards, or more likely the North African Barbs which are much more common in Spain than the Arab.

The Texan native stock is running to sorrel and light bay, as the darker colors do not survive in such vigor. In the Southwest the pintos are more in evidence. On the western plains, the most vigorous and enduring are the ugly dirty yellows, which the cowboys prefer for work, reserving the blacks for show or pleasure as a rule. In the darker eastern States the farmer prefers the bay for endurance, but the Filipino finds the best are the buckskins with black stripes down the spine. From Fitzwygram's "Horses and Stables" one would presume that in England chestnuts and bays are good, but the lighter grades of any color are bad, as we would presume where there is neither great heat, cold nor light. The ass, which

is a wild dun tropical animal, has run for thousands of years to gray and white under domestication in Africa, Asia and Europe. On the other hand in Northwest Europe any color of horse will survive which gets stable protection, and as a matter of fact the white skinned ones are very common as they keep warm in winter. There is then ample reason for the almost invariable rule that our white mules have black skins, inherited either from the black skinned ass or, what is more likely still, are remote descendants of white Arabians or Barbs.

When we do take the northern stock to the tropics they must be shaded or they sicken or die. We did not know that the retina was only sufficiently pigmented to protect from the subducd light of N. W. Europe, but horsemen were so strongly of the opinion that the stock must be sunned that they could not realize that too much sunning was fatal. So in 1908 in Cuba it was necessary to prohibit unshaded picketing between 9 a. m. and 4 p. m. to prevent the eye troubles due to the light. This is the reason for the former prevalence of conjunctivitis, iritis, retinitis and blindness among American horses in the Philippines and indeed quite a number were ruined in health in other ways before we realized the danger of midday exposure. The eye is so shaded from light that a horse cannot see much above the horizontal, and high checking may cause injury from sky-glare.

So difficult is it to preserve European horses in India, that they have depended upon native cattle for transport even in the field and light artillery. I have been informed by Dr. C. G. Thomson, Veterinarian of the Philippines Bureau of Agriculture, that the best breed for this purpose has been found by experience to be the Nellore cattle which, like the Arabian horse, has a white coat and a black skin. It is said that this stock made it possible to send Indian troops to Egypt in 1801 to drive out the French. Conspicuousness was of little disadvantage compared to survival. Cavalrymen and artillerymen are unanimous in opinion that their horses must not be conspicuous or they draw fire and now we see that the color selected must be one which is best for the climate, and that in the tropics we may have to depend on the yellow colors for mounts and to abandon such concealment for the trains, using

white mules as the British have done in India for a century and a half with white oxen.

Another general law applies to the migration of northern stock and it is of very great importance. Zoologists have long known that if a species extends very far in latitude the varieties increase in size from the equator towards the arctics, and that if a genus is similarly extended the species are bigger as we go away from the tropics. There are big mammals in both extremes with special means of keeping proper temperature, but other things being equal, bulk is an enormous advantage in keeping warm in cold climates, and slenderness and small size in keeping cool in the hot. This rule applies to man also, and it has long been known that the big northerners of Europe have a much higher sick and death rate in India or Africa and even in the United States than the little men like Lord Roberts and Dr. Livingston, the explorer. Tropical horses are all small, even tiny like the Japanese, and though special breeds like the Shetland and Icelandic can be kept by man in the north where food is too scarce for big animals, yet the tendency is towards bulk in the vigorous and well fed. The Percheron is wholly out of place in the tropics and the effort to breed up big beef cattle is liable to fail. The matter is closely connected with color in keeping cool, for these huge horses are largely grays.

In passing it might be explained that there are three distinct ways in which horses change color. The first is by sunburn, as when we see blacks turn reddish brown-a natural provision, by the way, to avoid overheating in summer. This change is not transmissible, and the colts born of such burnt stock are as black as their ancestors. Black horses vary in their ability to sun-burn, and this valuable character is inheritable. The wild animal varies all over-that is, each hair is the same, and the best color is selected for survival, so that there is a tendency to solid colors, for these congenital variations are inheritable. Under domestication we have a third method, for when a solid dark color is taken to a light country, only a few hairs at a time change to white-for some reason we do not understand-and we thus have the grays from the blacks and roans from the bays or vellows. These, too, are inheritable, and as man invariably selects the best for breeders, the grays and roans increase very rapidly where they are the best. That is, the solid colors are domestic variations of wild species and the grays and roans are domestic variations of domestic solid colored varieties.

All grays and roans whiten with age and are usually quite dark when born. By the laws of evolution such late appearing characters are the most recently evolved, and it is proof that the grays or white horses is a recent variety probably evolved in domestication as better than the concealing yellow of the wild varieties. The northern indigenous dun horses tended to turn white in winter like the fox, hare, and ptarmigan, for then it was an advantage in concealment, as well as heat conservation, and it even tended to stay white the year round, but such types even though best for climatic purposes were more conspicuous and were not established until man protected them from slaughter by carnivorous enemies.

Coat color is thus seen to be purely for heat protection or conservation, the underclothing or skin pigment is never colored but is always black or blackish brown for light protection if there is an outer thin garment of hair. Red skin is found only where the hair is thin and red, and is really not an underclothing. The color is to reflect and is useless underneath. There has never been an explanation of the scientific reasons for the experiments with orange-red underclothing. What we want are garments which do not transmit any rays, and any color will do, but as black is best for equal thickness of material, nature always selects that color for the microscopically thin undergarment of the skin pigmented layer. As a matter of fact the orange-red clothing used had shrunk in dyeing and was of heavier weight than many people wear in northern winters, and the results only show that we should not use heavy clothes in the tropics. Ouicker results would have followed from issuing furs. Besides, the men often went out in their undershirts and were at as great a disadvantage as the carabao in the sun. The latest report of the dark colored khaki cloth also shows it to be too hot. White is the best but requires a black undergarment in the sun as with Arabian horses, while the yellow khaki is opaque enough without underclothing and is the color nature uses with wild horses. For night use or in

shaded houses and stables black is the best for it radiates heat and is selected by nature as the coolest for nocturnal tropical animals. White is too hot at night as it conserves heat as in polar animals, but somehow we think it cool. But black horses are cooler in summer in shaded stables than the white animals. The double canvas awning of tropical passenger ships has a white canvas on top and a dark one, generally blue, a few inches beneath it—the same arrangement as nature uses with white horses in light countries. It is exceedingly comfortable and I have successfully used the scheme in hospital tents for the tropics—a white fly over a blue topped tent—and found it very comfortable.

The Coreans dress in white for it serves the same purpose of heat conservation as the whiteness of their northern horses and arctic animals; but tropical peoples who are not compelled to go outdoors in the daytime show a remarkable tendency to don black or dark colors like the carabao, as more comfortable from the greater radiation. The main use of man's hair is to shade the brain, and in hot climates it tends to become kinky (never woolly), for greater effectiveness and also not be unduly hot. Perhaps a horse's mane has a similar use as well as a protection from insects.

The matter of color fitness to the tropics has never been brought up, consequently there are no available statistics as to the relative efficiency, health and length of life of the various colors of horses. Nevertheless in a few tropical places, I have found that horsemen have noticed that the light colors and grays are the best. The blacks are the most sickly and shorter lived, if exposed, but if carefully shaded from 9 a. m. to 4 p. m., their blackness is a great advantage in keeping cool. Here and there, I have found teams of gray horses or mules in perfect condition after years of work on hot trails without a day's sickness, in conditions which worry, fret, sicken and kill the dark ones. The only accurate figures obtainable were given me by Captain S. C. Vestal, C. A. C., who had a mounted organization at Tampa through the hot season of 1898:

"We had six blacks, sixty bays, twelve sorrels, and about seventy grays. These horses were exposed to the sun with very little protection for about two months. They were all in excellent condition when we received them. We gave them as much shelter as possible, but they were necessarily exposed during the day to the sun. Five of the six blacks died, and the sixth one must have died a short time after we turned him back to the quartermaster. Several bays died, and all lost flesh; none of the sorrels died; all lost flesh to a much less degree than the bays; none of the grays died; and, as far as we could see, they did not lose flesh. My recollection, on thinking the matter over, is that we had three or four roans that remained in excellent condition; but I cannot be certain of this. Nevertheless, it seems to me that we placed the roans in the scale of health between the sorrels and the grays."

Major A. J. Robertson, P. C., informs me that in 1903 he bought 100 Chinese mules of all colors, for the Philippine constabulary, and yet eight years later, as far as he knew, only four had survived, and they had milk white hair and jet black skin. Even in our West, the negro soldiers used to say that a white mule never dies. In Manila, it has been observed that the horses which survive all adversities and become disabled from age are almost exclusively white, gray, roan and light yellow; the whites predominating very largely. The average length of life of American horses in the Philippines is only five years. Major Robertson from his experience proposes in the future to buy only white-haired, black-skinned mules. It is quite evident that by such rapid selection the Arab horse has become white or grav to a large extent in a very short time. Yet it takes more than a year to show the relative tropical adaptability of sorrels and dark bays, which, by the way, correspond to the grades of blond and brunet in man, and the latter also do not show much difference in one year, though it is a matter now undergoing investigation for the very kind of data we also need as to horses over five years in the tropics.

What is now needed is carefully compiled statistics of horses which die or are disabled in every climate in the world to which we ship our horses and mules—including age, color, where bred, when and where purchased, how long in the new climate before death or disablement, and whether the animal had been vigorous or sickly as a rule. Even disabilities by injury

should be reported, for the best stock will survive what kills the feeble.

As yet we cannot pretend to say what colors must be selected for each place, we can only presume that in the sunny West we should take the grays, lightest bays, sorrels and yellows; in the arid Southwest, resembling Northern Africa, the grays and very light colors, and in the Northeast and Northwest the darker colors; also that blacks should be excluded from field service in the Southeast and the tropics, but in garrison they do well if shaded. Draft animals should be whites or grays exclusively. The increasing difficulty of getting the best solid colors for military uses is due to their dying out. We may have to accept grays very largely even if they are conspicuous. They seem to be increasing in number as they did in the similar condition of China and Northern Africa centuries ago.

There is some unknown causative relation between color and nervousness, for on "review," as a rule, the gray troop is actually phlegmatic, the sorrel quiet and the bays excitable and restless. There is some evidence that the most excitable of all are the blacks, though all colors furnish quiet specimens. The white horse is often the family standby and always seems to be old. It is the only kind fit for circus acrobats, but it has never been known to make a modern racer. Moreover, a thoroughbred stallion is not salable if it is even suspected that he has white relations or has had a gray in his get. On the other hand, the white is so much better fitted for the tropics that he wins an undue percentage of races in Manila. Nervousness is so harmful in the heat that, as a matter of selection, the Arab breed has developed into a quiet, gentle and sensible animal. The white is more "trainable" and is always selected for "trick" horses. So it is quite likely that the English and American thoroughbreds have totally eliminated the Arab blood, which is said to be the basis of all these strains, and by Mendel's laws of heredity the thoroughbred horse perpetuated only the nervous types of dark northern stocks, as quickness is an essential for which they were bred.\* This phlegmatic

<sup>\*</sup> See, also, Fitzwygram's "Horses and Stables," 5th Ed.

characteristic, of course, helps the white horses and mules in the tropics—they are slow and take life as easily as a carabao. If other places give statistics half as conclusive as those of Captain Vestal and Major Robertson, it means that by proper color selection we can save much expense and keep the stock in better condition with less sickness and get more work out of them.

Cities should furnish valuable information as to the best colors for the tropics, as a very hot wave in summer, in Chicago, for instance, kills the least fit at the rate of 300 to 500 a day, and it is safe to predict that on investigation the dark colors will predominate.

The general principles in the book, "The Effects of Tropical Light on White Men," are now said to guide the British Government in the selection of tropical servants, but we have not yet paid any attention to that matter. It is hoped that if the book proves to be the means of saving public money now spent on unsuitable horses, its publication will not be in vain, even if we have failed to profit much by it ourselves. In the last two decades, acclimatization has been repeatedly proved to be impossible, and the word is now only used by ignoramuses. A few belated physicians still profess to believe that nature made a mistake in pigmenting living forms in light countries, but that is no reason why cavalrymen should be so foolish as to injure their branch of the service by trying to acclimatize horses where God cannot do it.

Mr. W. R. Gilbert (*The Horseman*, Chicago and New York, April 4, 1911) shows that in the "earlier part of the eighteenth century, grays were, in England, the most successful horses on the turf. Gimcrack, Mambrino, Gray Diomed and Gustavus were all grays. The last named is the only gray horse which has won the English Derby. This was at a time before the Arab blood was bred out of the "thoroughbred," and these racers were slow compared to the modern, which come from Eclipse (chestnut), Matchem (bay) and Herod (bay), all of which are blended in Blacklock (bay). Even Eclipse blood is being eliminated, for the racers are now almost wholly brown and bay. Further south in France, grays are not so rare, Baron Scheckler having a line of such thoroughbreds from "Gem of Gems."

The cavalry are having difficulty in getting proper mounts even in the United States, and it is because the stock of Northwest Europe changes in our climate, and any attempt to acclimatize their more weighty, speedy and nimble horses is biologic nonsense. Even the racers with which we are so successful must be coddled in a way impossible for field serv-Nor can we establish a half-breed or other cross. This may be illustrated by the experience of the Danes with hogs. The native breed gets its growth quickly but is not big enough. so they introduced the big white Berkshire to improve the stock and got exactly what they wanted: a big animal ready for slaughter in eight months. This is a vital matter to Danes, for their country is really a suburban farm supplying Londoners with ham and bacon. So they made numerous attempts to establish the new breed, but by Mendel's law the progeny reverted in time to one or other parental type. Now they constantly import breeders and slaughter all the hybrid progeny for the market, and this really makes Denmark part of the British Empire, with whom war is impossible, by the way. Some genius will some day find a cross as fit for our cavalry as the European stock is fit for foreign troopers, but it will not be a permanent type, and, moreover, it will be suited to only one of our innumerable climates. We cannot get a horse fit for every place. A black horse which must be coddled in garrison to keep it alive, summer or winter, is, of course, unfit for war, as coddling is then out of the question, and it dies like those at Tampa, and possibly also in cold countries.

Professor Wallace is preparing a work on tropical domestic animals for the new Macmillan series of works on tropical subjects, where the matter will be more fully treated.

# Note to the Editor:

I have carefully read the above article and would like to get the statistics that its publication will undoubtedly elicit.

GEO. S. ANDERSON, Brigadier General U. S. Army.

Headquarters Department Visayas, Iloilo, P. I., May 17, 1911.

# CAVALRY REORGANIZATION.\*

BY CAPTAIN HOWARD R. HICKOK, FIFTEENTH CAVALRY.

WITHIN the last few years there has been a growing feeling with the cavalry officers of our service that our organization is not that demanded by present conditions. The reasons for such regard have not always been clear. In the following discussion some of these will be set forth. It is not thought that our organization, both of the regiments themselves and of the entire cavalry, with reference to the service at large, is that which will secure the greatest efficiency for duty in war.

## PERTINENT FACTS OF GENERAL BEARING.

Among the various elements of a more or less political nature that must be considered in attempting any reorganization, the following may be mentioned:

Our legislative traditions habitually insist on a minimum or "peace" strength, and are historically opposed to full or "war" strength.

The tendency has always been during the continuance of a war to create additional organizations, allowing the old ones to dwindle rather than to keep up to full strength those already in existence.

Legislative prohibition prevents in time of peace the permanent organization of units higher than a regiment.

Every organization or reorganization scheme is viewed by Congress with suspicion, as being not for the purpose of increasing efficiency of the army but for the purpose of securing promotion for somebody.

Every scheme for reorganization of the cavalry and which does not at the same time bring promotion and other advan-

<sup>\*</sup> This article was received just after the July, 1911, number of The CAVALRY JOURNAL—the Reorganization Number—had gone to press.—Editor.

tages to the other arms will be met by jealous opposition, an opposition of such a nature that cognizance will probably be taken of it by higher authority.

# HISTORICAL DEVELOPMENT.

#### EUROPEAN.

The present European ideas on cavalry date principally from the time of Frederick the Great. When this monarch ascended the Prussian throne he found "the cavalry composed of large men, mounted upon heavy, powerful horses, and carefully trained to fire in line, both on foot and on horseback. This force was of the heaviest type and quite incapable of rapid movement. In fact, the cavalry of all European States had degenerated into unwieldy masses of horsemen, who, unable to move at speed, charged at a slow trot and fought only with pistol and carbine."

"His [Frederick's] first change was to prohibit absolutely the use of firearms mounted, and to rely upon the charge at full speed, sword in hand. He taught his horsemen to disregard the fire of the enemy's squadrons, and to rush in with the utmost vigor, and in order that this charge at speed should be as effective as possible, he lightened the equipment and armament of his soldiers, and took every possible measure to enable them to move rapidly and in good order over every kind of ground."

"Out of twenty-two great battles fought by Frederick, his cavalry won at least fifteen of them."

The Prussian cavalry consisted of cuirassiers, dragoons, and hussars. A regiment of cuirassiers contained five squadrons, each comprising two companies of seventy men each. Most of the dragoon regiments were of the same force and composition as the cuirassiers. One dragoon regiment had three squadrons and two others had ten squadrons, but these were the only exceptions. The hussars were organized in regiments of ten squadrons each, but the squadrons were not so large. Each regiment contained fifty-one officers and 1,440 horses.

The tactics adopted by Frederick were so effective against those of his adversaries that it was not long before they adopted his organization and system of tactics. The larger organizations were eliminated and the organization of the cuirassier regiments may be considered as typical. The organization then adopted has become so strongly impressed upon European traditions that very little change has been made in it since the middle of the eighteenth century, and that organization is practically the same in all nations, the United States excepted. As indicated above, this organization was made for the purposes of mounted combat. No change has as yet been effected in it by the improvement in firearms. Many prominent European writers, while recognizing the necessity of dismounted fire action and making the necessary recommendations as to changes in cavalry tactics, make no recommendation as to changes in regimental organization.

#### AMERICAN.

In the early part of our national existence, legislation made little difference in organization between the mounted and dismounted forces. We find the cavalry variously designated as dragoons, cavalry, and mounted rifles. The organization, with minor differences, was that of infantry, usually ten companies to a regiment, having as field officers one colonel, one lieutenant colonel, and one major.

No permanent mounted force was created until 1833 when the First Dragoons was organized. Other regiments were added from time to time until, at the outbreak of the Civil War, there were a total of five regiments in the regular service, their general organization being that just stated.

The Act of Congress of July 22, 1861, authorizing a call for 500,000 volunteers, prescribed that the organization should be similar to that of the regiments of the regular service. This Act authorized the organization of cavalry and artillery not to exceed the proportion of one company each for each regiment of infantry called into service. As the regiments consisted of ten companies each, this Act established the proportion of cavalry to infantry as one to ten.

A sixth regiment of cavalry was added to the regular service in 1861. By the Act of July 17, 1862, the six regular regiments were reorganized, the organization being made uni-

form in each; each having one colonel, one lieutenant colonel, three majors, the necessary commissioned and non-commissioned staff; twelve troops, each troop having one captain, one each first and second lieutenants, and a total enlisted of 100 men each. A supernumerary second lieutenant was also authorized to each troop. In 1866 the cavalry was further increased by the addition of four regiments, the organization of the entire cavalry service remaining, with but slight changes, as it then existed.

The cavalry corps of the Army of the Potomac in 1864-1865 may be taken as a fair example of the organization of all the Union cavalry at that period of the war. The corps was composed, at the beginning of the campaign from the Rappahannock to Petersburg, of 3 divisions, of 7 brigades, of 33 regiments, 585 officers and 11,839 men, giving an average of 18 officers and 364 men per regiment, a little less than 1,700 per brigade, and about 4,000 per division. The cavalry corps of the Army of Northern Virginia at this time shows a similar organization, being composed of 2 divisions of 6 brigades, containing 23 regiments, 464 officers and 7,932 men, or an average of about 20 officers and 344 men per regiment.

The tactics in use by the Union cavalry at this time were those of Colonel P. St. George Cooke, adopted in 1861. The drill provided for the maneuver of the squadron (our troop), the regiment, and brigade. Between the squadron (our troop) and the regiment, there was no intermediate organization corresponding to our present squadron. There were no specific duties assigned to any of the five field officers authorized per regiment, except to the commanding officer. According to these tactics, two regiments formed a brigade and two brigades a division.

The infantry tactics in use during the Civil War were those of General Silas Casey of 1862. These provided for the drill of the company, of the battalion, and of the brigade. The battalion was the drill or maneuver name of the regiment, and four such battalions constituted a brigade. These features continued down through the editions of Upton's Tactics of 1867 and 1873. It will thus be seen that the organization and

drill of the cavalry and infantry of the period of the Civil War were similar.

In 1867 Upton's Infantry Tactics were first adopted. A board convened in 1873 revised these and also produced the assimiliated cavalry drill called "United States Tactics, Cavalry; 1873." The revision of Upton's Tactics and this cavalry drill book were both adopted. The cavalry tactics provided for practically an infantry double rank formation and drill dismounted similar to those of Upton's Tactics. For mounted work the battalion consisted of any number of companies from two to seven, four being considered the normal number. A field officer, rank not stated, was supposed to command the battalion. The regiment was supposed to consist of three battalions, each of four companies, but the rules of drill were applicable to a greater or less number of battalions of a greater or less number of companies. The brigade was given as consisting of three regiments. The size and composition of the division was not stated.

Already in Europe the present three-battalion system had been adopted. It will be seen from the above that our cavalry adopted for its mounted work the three-battalion system before even the infantry of our army had adopted it. The 1873 editions of both cavalry and infantry tactics were in 1891 superseded by the drill regulations adopted that year and which may be said to be those on which the drill regulations now in use were directly based. These 1891 drill regulations definitely adopted for the infantry the three-battalion system of drill. Congressional legislation of 1898 added the necessary field officers and companies to the infantry to make the three-battalion system effective.

It will be seen by the foregoing discussion that our present cavalry regimental organization is a growth; that the three-squadron system of drill was not introduced until 1873, eleven years subsequent to the date when three majors were authorized per regiment, and that the present organization and system of drill cannot be said to be based directly on our experiences in the Civil War.

It will be further observed that our cavalry holds strongly to the principles of dismounted fighting. This is an essential difference between our cavalry and that of the rest of the world. Our cavalry has always been trained for mounted combat, but during the Civil War and in partisan and border warfare, before and since, dismounted fighting has been an essential feature of our fighting tactics. It is, therefore, traditionally impossible for us to adopt any organization that does not give great prominence and consideration to dismounted fighting, and we are not prepared to adopt the European organization, which is founded on the organization of Frederick the Great and has practically no traditions which are not those of mounted combat.

#### BASIC PRINCIPLES GOVERNING ORGANIZATION.

The organization should be such that the following elements will be secured, as far as practicable:

- 1. Facility of maneuver, both in mounted and in dismounted movements and in the charge.
- 2. Securing the greatest strength for the kind of fighting required; such as the number of sabers in the mounted charge, the number of rifles when dismounted and fighting on foot etc.
- 3. The size of the units should be suitable to the various tactical purposes to be subserved, as for divisional cavalry, contact troops or squadrons, etc.
- 4. Convenience of and facility for command by the troop, squadron, and regimental commanders.
- 5. Of a size and composition partaking as little as possible of the distinctive characteristics of the higher organizations, of which the smaller organization forms an integral part.
  - 6. Or a size suitable for combination into higher units.
- 7. Organizations adapted to the probable nature of the warfare for which to be used.
- 8. The regiment should be the unit for detached service; not the squadron, as now obtains.
  - 9. Simplicity of organization.
- 10. Regiments should be homogeneous in composition; either all regulars, all militia, or all volunteers.

The reason for this should be apparent to all concerned; yet, it has frequently been proposed in late years to form for war

mixed regiments of regulars and militia cavalry, or of regular cavalry and volunteer cavalry.

- 11. The regiments sould be maintained at such strength in peace that on being called into war their efficiency, as to personnel and mounts, should not have to be impaired by the addition of raw, untrained material to bring them up to war strength.
- 12. A system should be established whereby a constant flow of trained recruits and remounts is furnished direct to the regiments. The depot troop fills this requirement.
- 13. That composition and size which is most suitable for the purposes of administration, supply, discipline, and training.
- 14. The various subdivisions of a size, character, and organization suitable as a command for the officers of the various grades that are to command them.
- 15. Providing for a reasonable flow of promotion for officers.
- 16. The total amount of cavalry should be proportionate to the size of the force or army with which it is to be used.
- 17. The cavalry to be used with any force must be coexistent with that force.

It should also be noted that:

- 1. Small and numerous units increase the work of administration to the detriment of tactical training and efficiency.
- 2. Theoretical or paper strength includes all non-combatants and non-effectives, and never represents the fighting or effective strength.
- 3. Tactical formations or organizations having as their object large reserves for dismounted fire action are unjustifiable in the cavalry. This is due to the fact that the very nature of the cavalry dismounted fight requires that the firing line be as strong as possible from the very beginning; the reserves held out being small as compared to those required in the infantry fight.

#### FOREIGN ORGANIZATIONS.

In the following table is given data concerning the cavalry of the great powers of Europe, of Japan and of Mexico. Due to many details of organization, the figures here given represent as nearly as possible in small space the various organizations, as far as the data is available:

| COUNTRY         | No. Sqns.<br>per Rgt. | No. per Sqn. |     |        | No. per Rgt. |      |        |       |
|-----------------|-----------------------|--------------|-----|--------|--------------|------|--------|-------|
|                 |                       | Off.         | Men | Horses | Off.         | Men  | Horses |       |
| Austria-Hungary | 6                     | 5            | 171 | 156    | 45           | 1083 | 1021   | Peace |
|                 | 6                     | 5            | 171 | 156    | 39           | 1092 |        | War   |
| France          | 5                     | 6            | 156 | 141    | 44           | 787  | 734    | Peace |
|                 |                       | 7            | 162 | 141    | 49           | 817  | 734    | War   |
| Germany         | 5                     | 5            | 139 |        | 25           | 645  | 678    | Peace |
|                 |                       |              | 145 |        | 25           | 725  | 678    | War   |
|                 |                       | 6            | 172 |        | 1            |      |        | War   |
| Great Britain   | 4                     | 6            | 162 | 175    | 25           | 650  | 523    | Peace |
|                 | 3                     | 8            | 158 |        | 25           | 528  | 525    | War   |
| Italy           | 5                     | 4            | 155 |        | 34           | 801  |        | Peace |
|                 | 6                     | 5            | 133 |        | 34           | 801  |        | War   |
| Japan           | 4 & 3                 | 5            | 136 |        | 24           | 512  |        | Peace |
|                 |                       | 5            | 142 |        | 24           | 539  |        | War   |
| Mexico          | 2                     | 6            | 72  |        |              |      |        |       |
|                 | 4                     | 8            | 105 | 105    |              | 420  | 1      | Peace |
|                 | 6                     | 5            | 140 |        | 30           | 770  |        | War   |
| Russia          | 2 to 6                | 5            | 173 |        | 30           | 915  |        | Peace |
|                 | 6                     | 5            | 173 |        | 30           | 915  |        | War   |

Austrian and Italian regiments each have two subdivisions corresponding to our squadrons. Except Mexico, all these countries provide depot troops (squadrons). Mexico has a few skeleton regiments in ordinary times of peace, but these have been lately expanded to the war footing. These are indicated above, under the two-squadron regiments. In the foregoing table, the total enlisted includes both the effectives and non-combatants. As a rule, the effectives number about 150 sabers per squadron. Many of these countries have pioneer and signal detachments either attached to the regiments or as integral parts of them. The machine guns are variously organized. In some

countries they form detachments and are permanent parts of the various regiments, and in other countries machine guns are only attached when needed, as at maneuvers.

Field officers in cavalry of the various countries above are as follows: Austria, with six squadrons per regiment, has three; Great Britain, with three squadrons, has five; France, with five squadrons, five; Germany, with five squadrons, from two to five; Italy, with six squadrons, four; Mexico, with four squadrons, three, and Russia, with six squadrons, four. This gives an average of approximately one field officer to each 1.25 squadrons. The regiments are all commanded by either a colonel or a lieutenant colonel. In the British service, each squadron is commanded by a major. In the Austrian and Italian services the half-regiments are commanded by a field officer. In other cases the duties of the field officers are similar to those of our lieutenant colonel when all other field officers of the regiment are present.

There are certain elements more or less similar in all foreign regiments. Among these elements may be mentioned the following:

The smallest foreign unit is the squadron. It varies in strength not far from 150 men.

The peace strength is always not very much different from the war strength. Where additional men are added for war, they are usually non-combatants of various sorts.

The number of horses in peace is also about that of the war strength.

The next higher organization above the squadron is the regiment.

The squadron is habitually commanded by a captain, only one or two cases existing where it is commanded by a major. In some cases there is a second or supernumerary captain to each squadron.

From three to six squadrons form a regiment.

Except in the Austrian and Italian regiments, which are divided into half-regiments, there is no intermediate unit that corresponds to our squadron.

The foreign squadron, therefore, corresponds more nearly to our troop.

The regiments vary in strength from a trifle over 500 to nearly 1,100 men. The lower limit is found in Japan, which has no cavalry traditions and is essentially a non-cavalry nation.

On the declaration of war, an additional officer, usually corresponding to our second lieutenant, is frequently added to each squadron.

These armies all provide for depot squadrons, the function of which is to supply direct to the regiments trained men and remounts. These depot squadrons are all regimental, except in the British service, where there are several for the whole service.

On the declaration of war, regiments are practically on a war footing and at once take the field with full strength.

It is a well-known fact that tactical organization in Europe is frequently influenced by considerations of economy, organizations assigned to the command of various officers being on this account often larger than the tactical requirements. It would be interesting to note what changes would be made by these countries if this consideration did not largely enter their calculations.

# OUR PRESENT ORGANIZATION.

The principal part of the law governing the organization of the United States Cavalry is found in the Act of Congress approved February 2, 1901. Briefly, this is as follows:

"Each regiment shall consist of one colonel, one lieutenant colonel, three majors, fifteen captains, fifteen first lieutenants, fifteen second lieutenants, two veterinarians, one sergeant-major, one quartermaster sergeant, one commissary sergeant, three squadron sergeant-majors, two color sergeants, with rank, pay and allowances of squadron sergeant-major, one band and twelve troops organized into three squadrons of four troops each.

"Each troop of cavalry shall consist of one captain, one first lieutenant, one second lieutenant, one first sergeant, one quartertermaster sergeant, six sergeants, six corporals, two cooks, two farriers and blacksmiths, one saddler, one wagoner, two trumpeters and forty-three privates; the commissioned officers to be assigned from those hereinbefore authorized.

"The President, in his discretion, may increase the number of corporals in any troop of cavalry to eight and the number of

privates to seventy-six, but the number of enlisted men authorized for the whole army shall not at any time be exceeded."

This Act increased the number of then existing cavalry regiments from ten to fifteen.

A part of the Act of July 28, 1866, still in force, !eads:

"\* \* Any portion of the cavalry may be armed and drilled as infantry or dismounted cavalry at the discretion of the President."

The President may prescribe the tactics, mounted and dismounted, of the various troops, and their other duties; as, for example, that a certain troop shall be a machine gun troop or a depot troop, etc.

Our law also prohibits the organization, in time of peace, of permanent organizations higher than a regiment.

In time of peace, the regiments are, with few exceptions, organized with the minimum strength. Our Field Service Regulations prescribe an organization for cavalry regiments, which, not being that indicated in the above quoted law, will, accordingly, have to be so organized when so ordered, and which will be, if at all, most probably after the outbreak of war.

In peace, some regiments are stationed entirely at one station. Other regiments are broken up and scattered in garrisons from one troop up. In such cases there can be little or no collective training and the training in each regiment, due to the lack of opportunity for supervision by the regimental commander, will not be uniform.

Our recruits come from the general recruiting service. Some of them have had some training, usually only dismounted, before joining the regiment. In time of peace, remounts come from the remount depot. Following our custom of the past, the regiments will most probably, after the outbreak of war, be brought as soon as possible up to war strength by the addition of recruits and remounts, most of which are absolutely green and untrained. The supply does not uniformly keep pace with deficiencies, and in war there is no certainty as to the maintenance of strength within reasonable limits.

With the present peace strength and the necessities of administration, details, detached service, etc., the number of men per troop present in ranks rarely is as many as fifty, usually being

very much less. The effective strength for tactical duties is, accordingly, usually found to be, on peace footing, 100 to 200 per squadron and 300 to 600 per regiment; on a war footing, 60 to 80 men per troop, 240 to 320 per squadron, and 720 to 960 per regiment. By these figures are meant the number of men that may reasonably be expected to be present in ranks, sabers mounted or rifles dismounted.

# OBJECTIONS TO OUR PRESENT ORGANIZATION.

Among the various objections to our present organization, the following have been made:

On the outbreak of war, by the immediate addition of raw men and horses, the efficiency of all organizations suddenly becomes least at the very time when it should be greatest.

Organizations, as they exist in peace, cannot take the field within a reasonable time, at war strength, efficiently trained.

Peace strength on war duties involves a disproportionately large amount of administration and a minimum of tactical performance.

Provides for no regular and certain system of recruitment, recruit training, nor of remount supply and training.

Regiments at war strength are too large as regiments, and in size are more nearly that of brigades.

The regiment at war strength lacks the maneuvering power to be expected in a regiment.

Administratively, it is too cumbersome in action, requiring orders to be transmitted to too great a number of subordinates.

Peace strength is too small for efficient collective training and training of higher units.

Regiments are usually broken up and scattered, the colonels having no influence over training and efficiency.

The law provides for no machine guns, nor for special details, such as pioneers, orderlies, clerks, etc.

It is an infantry organization.

For field service and at peace strength, a whole squadron is necessary for the duties of contact squadrons, while at a war footing a squadron is too much and a troop not enough, thus requiring either a whole squadron or too many to be used, or that a squadron be split up, thus sacrificing unity.

The present regimental organization is too large for the purposes of divisional cavalry. This is illustrated by the fact that the Field Service Regulations provide that habitually one squadron will be used as provost guard. By this provision, one-third of the cavalry with the division is immobilized for tactical purposes.

In squadron formations, all movements are delayed by having to await the arrival of the fourth troop, even though that troop move at an increased gait,

In regimental formations all movements are delayed by the necessity of having to await the arrival of the third squadron, even though that squadron move at an increased gait.

In favor of our present organization are advanced the following:

The organization is based on a long practical test in the Civil War. Although this statement is very often met with, as shown above, it does not agree with the facts.

"Let well enough alone. The present organization is one that we have and works well enough." This, of course, is not an argument. Adherence to such a policy is an absolute prohibition of progress.

With our present system of detached service for officers, the number present with the regiment more nearly agrees with the necessities of instruction for our present organization and peace strength. As a result, our men are more highly and better trained than they would be were our troops larger. There is no doubt that in late years the number of detached officers has been detrimental to immediate troop training.

# PROPOSED REGIMENTAL ORGANIZATIONS.

The various proposed organizations that have so far received any considerable notice from cavalry officers are of two or three squadrons, each of two or three troops. Some have made separate provision for machine gun, pioneer, etc., detachments and depot troops, and some have not. In hardly any discussion has any consideration been given to any troop strength other than of 100 men, although no satisfactory reason has been advanced that such strength may not advantageously be larger.

The following are some of the principal regimental organizations suggested:

Regiment of Three Squadrons, Each of Three Troops.

The advantages and disadvantages of such an organization are: This organization can be effected without any change in our present laws, merely by executive order. One troop of one squadron can be designated as machine gun troop and one troop of each of the other squadrons as a depot troop. It is not thought that many cavalry officers will favor immobilizing two of our present troops for the purpose of making depot troops out of them.

It is claimed that with an organization of three platoons per troop, three troops per squadron, three squadrons per regiment, three regiments per brigade, and three brigades per division, drill, maneuvers, and tactical formations will be much simplified. There is something musical and attractive to the ear in a successive 3-3-3 combination, but it is not admitted that by such an organization drill and maneuver will be simplified and it is further certain that this organization will not meet the varying tactical requirements of active campaign.

It is claimed that the three-troop three-squadron regiment, with machine gun troop, total about 1,000 men, is a colonel's command. As to numbers this is true. But the same objections hold as apply to the four-troop three-squadron regiment; that is, it is practically a two-line organization, and organizations requiring two-line formations are, in reality, brigades.

A variation of the three-squadron regiment is one in which two squadrons are regulars and one squadron either militia or volunteers. This violates the principle of homogeneity. The chain is only as strong as the weakest link. Due to the diverse interests of the regular and other squadrons, there will be a lack of harmony and of that unity and esprit so necessary to efficiency.

The three-troop squadron is a more handy organization for drill and maneuver than the four-troop squadron. This is a point generally conceded.

Regiment of Three Squadrons, Each of Two Troops.

It is claimed that this is a convenient organization for mounted maneuvers and is a particularly good organization for the mounted charge. There is no doubt that the two-troop squadron is a very handy one to maneuver, but it is not a well balanced one. The major has only two units to command and it does not seem as if his field of action is sufficiently extensive with only two troops at his disposal. Even if the troops be kept at 100 men each, it would not seem that a major's command is sufficiently large. As a maximum he would have probably not to exceed 160 men present in ranks for tactical work. With such a regiment, the colonel, although having a command nearly commensurate with his rank, is commanding a number of very small units, and this, in itself, is objectionable.

Regiment of Two Squadrons, Each of Three Troops.

The following claims have been advanced for this organization:

That it offers greatest facility for maneuver, both in mounted and dismounted movements, to and from line and column, mass, extended and close order, in the charge, and in the fire fight.

That it enables the maximum number of men to be used from the start for tactical purposes, both mounted and dismounted.

That the regiment is of a size suitable for use as divisional cavalry without the necessity or excuse of immobilizing any part, as a squadron for provost guard, etc.

That it is a regimental form of organization, not that of the brigade.

That it is of a size suitable for combination into brigades.

The composition and size are suitable for the purposes of administration, supply, discipline, and training.

Provides a suitable proportion of field officers to provide a reasonable flow of promotion.

That with an increased number of men per troop and maintained at war strength administration will have been diminished and tactical efficiency and training increased.

Such objections to this form of organization as may exist

are found inferentially in the claims advanced for the other forms.

# RECENT EXPERIMENTS WITH PROVISIONAL REGIMENTS.

These experiments, conducted in the spring of the present year, were made by the Eleventh Cavalry, strength 1,140 men, organized into two provisional regiments, one consisting of three squadrons, each of two troops, and the other regiment consisting of two squadrons, each of three troops. Many obstacles were in the way of exhaustive or conclusive tests. Instead of getting out 100 men to a troop, the number usually ranged below 70. Officers were also scarce and at times there were as few as one officer per squadron for duty. In these circumstances, it was impossible to draw conclusions as to the effectiveness of the larger organizations. One of the results of the tests, indicating a lack of conclusiveness, is the fact that quite a number of officers participating recommended an organization that had not been tested either there or elsewhere, and which is still in the state of academic discussion—the three-squadron regiment, each squadron composed of three troops. There was no attempt in these experiments to work with the larger or European unit—the troop of 150 to 200 men. Consequently, the conclusions for or against any particular strength of troop and regiment cannot be said to be founded upon complete information.

But, among the officers reporting upon these provisional regiments there was a general concurrence in the following principles:

- 1. Like other nations, we should maintain our cavalry units in peace at practically the same strength as is demanded in war.
  - 2. The number of units per regiment should be reduced.
- 3. The size of each lesser unit should be materially increased over our present peace strength.
- 4. There should be a reserve organization charged with the stores and maintenance of supplies, including the material and personnel for keeping the regiment in a proper state of efficiency.

#### MACHINE GUNS AND SPECIAL SERVICES.

The preponderance of opinion is that machine guns should now be an integral part of every regiment. On the general principle that two different arms should not be included in the same organization, machine guns should not be attached to the various troops, but should be organized into detachments of their own. A consideration of the manner in which they are handled tactically—habitually being employed either by themselves or in connection with the horse artillery to hold pivotal points while the mobile force maneuvers mounted or dismounted against the point of attack—also requires that the machine guns be given an organization of their own.

There is at present a growing tendency in some quarters to favor the so-called one-man machine guns, of which the Rexar is a type. These guns are lighter, can be handled by fewer men, fire much more rapidly than the ordinary magazine rifle, and have many points in favor of their mobility and utility as against the heavier machine guns. One objection to them is that, while more rapid than the ordinary magazine rifle, they are less so than the usual types of machine guns. But the chief objection to them is that, having no fixed mount for fire that is independent of the soldier manning them, the accuracy of fire will be influenced by all these personal factors that now affect accuracy of rifle fire and which are missing in the fixed mount machine gun. It would, therefore, seem that the fixed mount machine gun will be the type permanently adopted. The number of men required for the service of the machine guns is variable according to the gun used.

Machine guns should, therefore, be placed in an organization that is sufficiently flexible to enable the personnel to be varied according to the varying necessities of the machine gun with which the organization is equipped.

It is ordinarily considered that machine guns should be organized in pairs, commonly called a platoon. Opinion also seems to indicate that there should be as many such platoons as there are organizations which may be called upon to operate more or less independently; that is, there should be a machine gun platoon for each squadron of the regiment. Machine guns should, ac-

cordingly, be organized into a troop of as many platoons of two guns each as there are squadrons in the regiment.

The argument against separate machine gun organizations in the regiment sometimes advanced, to the effect that higher commanders may at times take them away from the regiment for use elsewhere, thus depriving the regiment of their immediate presence and assistance, would seem to be in utter disregard of the more important and broader principle that the higher commander should and must be allowed discretion as to the greatest necessities of the moment.

As to signal men, each troop should have its own men trained to signal. There is a growing demand for the inclusion of pioneers as members of the squadron or regiment. Undoubtedly, cavalry on independent operations will frequently be called upon to perform many duties ordinarily required of engineer troops and we will not always, nor habitually, have engineer troops present with the regiments. Due to the numerous and reasonable objections to detaching men from the troops for special duty, the demand for separate pioneer detachments seems reasonable.

Headquarter orderlies are now provided for by Field Service Regulations, their numbers being taken out of the strength allotted to the troops. Clerks are also necessary. These should be provided for by statute.

Pioneers, orderlies, and clerks may, therefore, well be included with the band and regimental and squadron non-commissioned staff, in a headquarters detachment.

## DEDUCTIONS AS TO REGIMENTAL ORGANIZATION.

The regiment consisting of between 500 and 1,000 men is a proper size command for a colonel. Such a command, organized into two squadrons, with a machine gun troop, headquarters detachment, and depot troop, will not partake of the nature of a brigade. In other words, it will be a true regiment.

The squadron may then consist of between 250 and 500 men. As shown above, the two and four-troop squadrons do not offer the advantages of a three-troop squadron. Two hundred and fifty men distributed in three troops equals 83 men per troop, which, though nearly our present Field Service Regulation strength, is generally considered too small a troop. The three-

troop squadron of 500 men gives a strength of 167 per troop, which, according to our present view, is too large a troop. One hundred and twenty-five men per troop will give about 300 men per squadron effective for tactical purposes, corresponding nearly to the present view as to the size of a squadron. In time of war, due to casualties, sick, wounded, convalescents, detached service, etc., the effective strength will fall off. Hence, to increase the effectives, the war strength will have to be greater than 125 per troop, very properly as great as 150. Even then, there will rarely, if ever, be to exceed 100 effectives per troop present.

There should, of course, be a depot troop. This will have a permanent station and will not be a part of the regiment for field service. The machine gun troop will vary, according to the character of gun with which equipped, from fifty and upwards. Pioneers, orderlies, and other special details, and non-commissioned staff will come inside of fifty.

As to officers, there will be the colonel, lieutenant colonel, two majors, the present regimental and squadron staff, except that one captain as supply officer will, under the proposed consolidation of the supply departments, replace the present regimental quartermaster and commissary, two veterinarians, and the present three officers per troop. In war, an additional or volunteer second lieutenant per troop should be authorized. As to the replacement during war of officers on detached service a volunteer army bill, introduced some time ago, will, if ever enacted into law, provide the means.

| The regiment will, under this arrangement, consist of                   | :     |
|-------------------------------------------------------------------------|-------|
| Combatant officers                                                      | 34    |
| Two squadrons, each of three troops, peace strength 125 men each, total |       |
| One machine gun troop, not to exceed                                    |       |
| Headquarters detachment and band                                        | 80    |
| One depot troop                                                         | 150   |
| Total enlisted peace strength                                           | 1.080 |

By the addition of 25 men per troop for war, the paper strength of the regiment for field service will be the same as that above.

<sup>\*</sup>Not included in the fighting or field strength.

By reference to the previously enunciated basic principles, it will be seen that this organization more nearly fills all the conditions for the organization of regiments than any heretofore proposed.

#### PROPORTION TO OTHER ARMS.

The total amount of cavalry should be proportionate to the force with which it is to be used. But this proportion should not be as low as that which many persons have assumed. On this point Hohenlohe states:

"There has been much writing and fighting over the question as to what proportion the number of cavalry should bear to that of the infantry. This proportion has varied in all epochs and in all armies. I consider that to attempt to lay down a hard and fast line for this proportion would be the act of a theoretical pedant. \* \* \* The duties of cavalry are so comprehensive and so important, especially at the first moment of war, that we cannot have too many cavalry ready for service. Every effective man, and every effective horse, must be employed for the defense of the Fatherland, and thus the amount of stock of horses in the country will alone decide the number of cavalry in the army."

The principle here enunciated by this great tactician, who, having served in all three mobile arms and risen to high rank, is regarded as an authority, is one to which many persons who are unfavorable to cavalry development will not agree. Our theorists, accordingly, take as the proper proportion of cavalry to other arms, not the proportion which European nations think they ought to have, but the proportions that they actually have in service. As an illustration of the principle, the fact may be stated that even today Austria has difficulty in securing within its territorial limits the number of remounts annually required to keep its cavalry up to the authorized strength.

All nations of Europe maintain during peace their cavalry and horse artillery at practically war strength, both so far as concerns personnel and material of the individual regiments and also as to the number of regiments in service.

Under our present laws, upon the outbreak of war the organized militia must be called into service before any volunteers

are called for. (Sec. 5, Act 21 Jan., 1903, as amended by Act 27 May, 1908, and as further amended by Act 21 April, 1910.) This makes the first line for service composed of both the regulars and the militia. The total amount of cavalry necessary for service with this combined force should be co-existent with it, whether belonging to the regular service or to both the regular service and the militia.

| Our regular cavalry force consists of             | 15 | regiments |
|---------------------------------------------------|----|-----------|
| The militia has 69 troops, equivalent to five and |    |           |
| three-fourths regiments, in round numbers         | 6  | regiments |
| Total cavalry now existent, round numbers         | 21 | regiments |
| The regular infantry force consists of            | 30 | regiments |
| The militia infantry consists of 141 regiments,   |    |           |
| nine separate battalions, and eight separate      |    |           |
| companies, in round numbers1                      | 45 | regiments |

Total infantry now existent, round numbers.....175 regiments

At nine regiments per division there will be nineteen infantry divisions and a fraction. Field armies will average upwards of two divisions, usually from three to five. At four divisions per field army there will be five field armies. Each will require from one brigade to one division of independent cavalry. Averaging this at one division per two field armies, an average which, if anything, is too small, there will be required two and one-half divisions of independent cavalry, or in round figures two divisions and one brigade, seven brigades all told, or twenty-one regiments. Each infantry division will also require one regiment as divisional cavalry, nineteen all told. On such a basis, the proportion of cavalry required for our present first line infantry is forty regiments. As shown above, we now have twenty-one regiments, leaving a deficiency to be supplied of nineteen regiments.

Taking the organization as contemplated in the Report of the Chief of the Division of Militia Affairs, for 1910, pages 15-40, an organization of the regular troops then present in the limits of the United States proper and of the militia into seventeen divisions is contemplated. A line of reasoning similar to the above gives us the following:

| Field armies                                   |           |
|------------------------------------------------|-----------|
| Cavalry divisions                              |           |
| Cavalry regiments in cavalry divisions18       |           |
| Cavalry regiments as divisional cavalry17      | regiments |
| Cavalry regiments required                     | regiments |
| Cavalry regiments available in U. S. proper 16 | regiments |
| Cavalry regiments deficiency                   | regiments |

These figures may then be taken as the requirements of our present first line organization of the entire service. Coincident with the organization of additional infantry regiments additional cavalry regiments should also be organized.

It is sometimes argued that the regular cavalry should not be computed on the basis of inclusion of the militia in the first line of national defense and that on such a basis the resulting organization of the regular army is not well balanced, having too great a proportion of cavalry. As stated above, the organization should be that which will secure the greatest efficiency for duty in war. The arguments advanced in 1901 on the reorganization of the army, when the militia had not received the attention which it does now and when the laws for its use in the first line were not as clear cut and positive as they are now, which arguments assisted in securing our present organization, apply with added force now. If there be an intent to disregard the laws including the militia in the first line, the militia and the country at large are ignorant of such intent and are being continually deceived.

There is hardly a war plan for the United States involving the present force of regulars and militia which does not provide for the organizing to accompany the troops first called into service of a number of new cavalry regiments. The value of such regiments as cavalry for several months following their organization, as is amply illustrated by precedent, is nil. In formulating plans for national defense excuses and apologies are sometimes made for not providing the proper proportion of cavalry. Such excuses are usually that the cavalry does not exist at present and that to provide it is very expensive. Such excuses and

apologies only serve to accentuate the necessity of providing in advance the required cavalry organizations.

In order not to cloud the issue by the introduction of corelated subjects, such as improvement of the personnel, training, higher inspections, and general supervision of training, all of which more or less directly affect the efficiency of organization, this discussion has purposely included in a brief way only tactical elements. But in order to secure an increased efficiency a mere increase in the number of regiments is not sufficient. We must have the men in peace. Troops, squadrons, and regiments must be maintained at full strength in order that both the men and officers receive the proper training.

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# SCOUTING AND PATROLLING.\*

BY COLONEL WILBER E. WILDER, FIFTH CAVALRY.

I N order to insure there being available for the use of the troops of this command some systematic and progressive method of teaching scouting and patrolling, the regimental commander has prepared the following. In so doing, it has not been his purpose to give anything that is generally found in text books, but simply to supplement what is laid down in the text books by setting forth a practical progressive method of teaching your men how to do the things the text books have already taught you should be done, and with which it is presupposed you are already familiar.

Anyone who has, or thinks he has, a better method of accomplishing the same result is at liberty to follow it; but some systematic progressive method of teaching scouting and patrolling must be followed by every troop of this regiment.

1.

No service performed by a soldier in war is more important or more difficult in its accomplishment than scouting and patrolling. Upon this service depends largely the safety of his own forces, and upon it, too, must his commander rely for knowledge of the strength, location and movements of the enemy.

Like any other instruction, in order to accomplish the best results it should begin with a proper foundation and progress systematically from there onward to the last finishing touch. The first thing needed in scouting and patrolling is observation, close and careful observation of the entire landscape, so that nothing will escape notice. The next thing needed is to be able to intelligibly describe what is seen; and, third, to be able to accurately

<sup>\*</sup>From a pamphlet of instructions for Squadron and Troop Commanders of the Fifth Cavalry.

locate what is seen with reference to some known point. These three qualifications, at least, must lie at the foundation of all good scouting and patrolling.

# II.

As a practical method of imparting such instruction, let us start with a troop of cavalry, whose officers, it is assumed, are thoroughly instructed—at least, theoretically.

Divide the troop into as many squads as there are non-commissioned officers, and assign a non-commissioned officer to each squad. The non-commissioned officers then place themselves in front of their respective squads, which are still in line. The captain then says something to this effect:

"I am going to teach you all, both non-commissioned officers and privates, the duties of scouts and patrols; and in doing so, I am going to commence by teaching you what it is necessary for everybody to know, what it is necessary for everybody to be able to do, before they can begin scouting and patrolling; that is, to teach you how to see everything as you march along, then how to describe everything that you see, and then how to locate everything that you have seen in reference to some known point. I am going to send each of these squads about three or four (or so many) miles into the country. Now, everybody listen to my instructions, especially the non-commissioned officers, but I want the privates also to listen and remember what I say. I will tell you what roads, trails or lines of march you are to take later on, but to begin with I will explain what you are required to do. From the time you leave here until you get back every man must be on the alert, and not let a single object, whether it be a person, an animal, a bridge, road, house, vehicle, barn, clump of trees, ridge, garden, canvon, gulch, ravine or anything else escape your notice.

"Now, remember, as you march along, everyone is to keep his eyes open to everything in sight, and must not let anything appear without seeing it at once. The first one to notice a new object, such as a vehicle, a person, a building, a bridge, a ditch, a stream, or anything else, must call attention to it quietly. And it is for that reason that you will keep the members of your squad more closely together than is usual in patrolling. Each noncommissioned officer is to keep track of the first man to see each object and let me know who keeps the best watch. The non-commissioned officers will each have pencil and paper, and must make a note of everything along the route, and report verbally to me when he gets back exactly where he has been, making a rough sketch of the route, and describe what he has seen and where he saw it, and locate on his sketch all streams, bridges, buildings, etc., etc., telling in words what they are, such as dwelling, barn, school house, church, etc.; whether bridges are of brick, stone, iron, or wood; length, breadth, and state of repair.

"When a moving object appears in sight, make a note of where it was when you first caught sight of it, what direction it took and where it disappeared, and locate it all on your sketch. Speak to everyone you meet or pass on the road, but use your judgment as to whether you simply say, 'How do you do?' or ask questions. You must not disturb anyone in a way to be resented. For instance, you meet a peddler, and ask, 'How far have you come this morning?' 'Where did you stay last night?' 'What have you in your pack?' 'How far are you going today?' 'Have you seen any soldiers this morning?' etc., etc. In your verbal report mention where you met him and what he replied to your questions. If you meet a farmer, ask him about the roads, streams, where he lives and the nearest postoffice, and anything else you can think of, and report as in case of the peddler, and so on throughout your march. If you meet or see another patrol or body of troops, note where it was, and in your verbal report to me tell its strength, what organization it belongs to, who was in command, and anything else you can find out without asking questions of its members. When you come to a cross road or a trail crossing your line of march, send two men in each direction for about half a mile to look about and report what they see. Make a note of what they report and insist upon their seeing and reporting everything just as you are instructed to do. The patrols you send on cross roads and intersecting trails will move at a trot until they rejoin you. You will march principally at the trot, but will walk or halt while cross roads or trails are being examined, and will make such halts as may be necessary in taking notes and making the rough sketch of your route. When you return, report to me with your notes and sketch at (such and such place)."

explanations; the captain at the same time pointing out errors

When all the notes, which should be simply the rough sketch and brief notes made on the march, are in, the captain should have the commanders of the patrols assemble, and each in turn, in the presence of the others, should amplify his notes by verbal and omissions, helping the non-commissioned officers in their language when necessary, teaching them the correct terms to apply in their descriptions, and how to accurately locate with reference to some known point everything that is reported.

The object of this preliminary work is to cultivate the faculties along the lines needed in scouting and patrol duty; that is, to cultivate the powers of observation and the ability to describe and accurately locate what has been observed.

A patrol should see everything; so, in this preliminary instruction, they should be required to report everything, omitting nothing, whether of military value or not. It is only by the reports that the captain can tell how thoroughly observations have been made. A man who has the habit of seeing only a part of what is going on will be about as liable to miss what is important as what is unimportant. What must be cultivated is the habit of noticing everything. The distances passed over should be comparatively short, because not only is everything to be observed, but everything must be reported. If the distances are too long, the work becomes tedious in the extreme and will inevitably be slighted. Distances should not be so great in the beginning but what the round trip can be made in three hours, including halts.

Too many instructions should not be given at the first lesson. They can be added to each time,

Keep up this preliminary instruction until the non-commissioned officers can make proper intelligible reports of what they have seen, and until the men have a fixed habit of observing everything and can accurately describe and locate what they have seen in reference to some known point.

### III.

After these preliminary exercises, as the next step, the captain should increase the distances somewhat; and while insisting on close observation, reports upon matters of military importance only should be required, and he should go more into details of conducting the patrol under varying conditions of topography, should have it take proper formation, etc., etc.; and he should carefully and repeatedly explain what it is important from a military standpoint to examine into and report upon.

In these exercises of the second stage of instruction, a part of the troop may be opposed to the rest of it, one part taking up a position the location of which is known only in a general way to the opposing party, the patrols of the one operating against the patrols of the other, obtaining information and transmitting it to the commander of the side to which the patrol belongs. Or, the opposing parties may approach each other from opposite directions, or one from the other's flank. The idea in this second stage of instruction should not be for the main body of one side to out-maneuver and gain a victory over the other, but for one side to gain more information of the other in a given length of time and transmit it accurately and promptly to its commander with the least practicable exposure to observation from the other side. 'Any captain can originate the necessary exercises for this instruction, but he should bear in mind that their object is the instruction of the individual soldier, especially the non-commissioned officer, teaching him self-reliance and developing his resources by independent action.

### IV.

As the third step in this progressive system the captain should go still more deeply into the subject of scouting and patrolling. He should explain carefully the duties of patrols that are used for security as distinguished from patrols that are used to secure information. Patrols for security, he should explain, are used to prevent surprise of our forces by the enemy; to prevent intrusion upon the part of the enemy's scouts and patrols who are ever seeking to get information of our own forces; and to keep up inter-communication between the elements of a command. As an illustration of this class of patrols, take the flankers and point of an advance guard; the patrols that keep up communication between the contact detachments or the supports and reserves of a cavalry screen, and the patrols of an outpost. Such patrols do not expose themselves to observation unnecessarily

(there is always an advantage in being unseen by the enemy), but they capture, if possible, the enemy's patrols, and fire upon them when necessary to prevent their obtaining a position from which they can gain information of our forces. They also fire to give warning of the approach of an enemy in force and the latter is delayed in its advance by the fire of the patrols from skirmish line or other formation and from positions suitable to the conditions of the terrain and the character and size of the enemy's forces.

As an example of patrols used to secure information, or in other words, reconnoitering patrols, take patrols that are sent to the front from the contact detachments of a cavalry screen; officers' or other patrols sent to reconnoiter an enemy's position, camp or bivouac or his columns when on the march. Such patrols do not fight except after being discovered, and then only when necessary to secure their escape. There is no mystery about conducting a reconnoitering patrol. It is conducted upon the same principles as though the patrol were a party of escaping prisoners trying to get outside the enemy's lines. To steal your way in you must manage just as you would if you were trying to steal your way out.

With a troop, to illustrate these two classes of patrols—the one that fights and the one that, as a rule, does not fight: Divide the troop into two portions equal or nearly so. With one portion form the point and flankers of an advance guard. Divide the other portion into patrols. Then let the patrols operate against the advance guard. The main body is imaginary and all of the advance guard except the point and flankers is imaginary or represented. The captain takes the position of the commander of the advance guard, which should pursue a route of march suitable to the purposes of the exercise. The country should be broken or wooded, or both, so that an enemy may find cover. The exercise would be of no value on an open plain. The object to be attained by the patrols is to get between the flankers of the advance guard without being seen, and therefore the flankersdepending upon the nature of the terrain—should be far enough apart to make it a fair contest between them and the patrols. A patrol discovered before it attains a position within the line or chain of flankers is defeated. A patrol or any member of a

patrol that gains, undiscovered, a position inside the line of flankers, wins.

In a similar manner a portion of a troop can form the pickets of an outpost and the other part of the troop be divided into patrols to operate against them. In this exercise subalterns and non-commissioned officers should submit reports accompanied by sketches giving the location of the pickets. Then intrenched positions should be reconnoitered and sketches made showing the positions occupied, with roads and trails that might be of use in operations against them.

The distance between opposing forces at the commencement of each exercise should not be less than four miles, and should not be known to either side.

All of these preliminary instructions should be without the hurry and skurry of a "fight." These are not problems, but exercises intended as a preparation for problems to follow.

## V.

During the preceding instruction, the captain having closely observed his men, is now able to decide with a fair degree of accuracy as to which have shown the greatest amount of aptitude for the kind of work that is usually assigned to scouts; but at any period of the instruction in scouting and patrolling, when the captain is convinced that he has discovered a soldier who will make a good scout, he will detail him, whether non-commissioned officer or private, either as a scout or as a candidate for that position. At least half a dozen should be selected in each troop for special training in that kind of work.

While non-commissioned officers may be detailed as scouts, no scout has authority over another when acting as such. The movements and actions of the scout must be individual, free and untrammeled, as free as the air he breathes, "Every man for himself." In this instruction we are trying to cultivate individuality along the lines essential in scouting, to encourage independence and self-reliance along the same lines, and to give each scout confidence in his own judgment and prowess. He must not be hampered by any responsibility except that of taking care of himself and accomplishing in his own way the purposes of his mission. In scouting, cohesion is not what is needed, but individual action,

which is quite the reverse. And there you have the American Indian warrior. If he advances, he does so at his own risk and in a way that his own judgment best approves. If he scampers away, he exercises the same freedom of will and judgment in doing it, "sauve qui peut."

There is no objection to pairing off or uniting voluntarily in greater numbers, but scouts must use their own judgment in regard to this. Given this individual freedom, and a generous, self-sacrificing comradeship grows up among scouts in campaign, which no amount of discipline or united action and control can equal in value in the class of service for which scouts are intended.

It must not be understood, however, that scouts attached to a patrol are not, for the time being, subject to the same control as all other members of it. In ranks, at all times, they have their regular positions and perform the duties appropriate to their several grades. It is not until detached that they act independently.

# VI.

As the captain did with his patrols in the beginning, so should he do with his scouts; only the activities of his scouts should cover a much wider territory, and the exercises should not be of so elementary a nature as were the first lessons given in patrolling. Those elementary lessons have already been given, and, it is assumed, have been well learned by those selected as scouts, special aptitude manifested in the earlier exercises having been the captain's guide in making his selections.

Every scout should have a map of the territory over which he works, and the territory should be covered by the scouts for twenty, thirty or forty miles in every direction. At this station in the Island of Oahu it would be well to divide the island into three territorial sections, one of the squadrons being assigned to each section. Then divide the section to be covered by each squadron into four smaller sections, assigning one of the smaller sections to each troop. This would insure the entire island's being explored and reconnoitered in a comparatively short time. Subsequently, captains may send their scouts into other territory, as they see fit.

These exercises for the instruction of scouts are really explorations of the territory over which operations would be conducted in case of actual hostilities, and will be followed later by explorations made by the organizations themselves.

In sending out his scouts, the captain tells each where he is to go, and what feature of the country is to be made the subject of special investigation; but scouts should always in these earlier exercises be required to investigate and report upon everything of military importance. The scout should be required to trace his route as he goes along upon the map that has been furnished him, supplementing it by his own sketches of the route, should he find his map in error, or whenever for any other reason such supplementary sketches may be necessary or desirable.

Upon his return, the scout reports to the captain, who supervises the work, teaching and explaining in this more advanced feature of the instruction as he did in the earlier exercises of the patrols.

Scouts should always carry not less than two meals in their saddle pockets. In the first few exercises, however, it will be best not to allow them to remain out over night; but a scout, having once established the fact of his resourcefulness and reliability, should be sent on missions that will cover two or three days of absence from his troop.

### VII.

The scouts having been trained in this preliminary work, in all subsequent exercises involving patrol work one or two or three scouts or candidates for that position are assigned to each patrol, and the scouts operate with the patrols or from the vantage points attained by them. To illustrate: Take a method frequently employed by the Boers. They were in the habit of using large patrols, which we might call contact detachments. The patrol or detachment would proceed as a body until within a certain distance of the enemy or the position to be explored, when the greater part of the detachment would halt, dismount, conceal their horses and lie in ambush. About ten or a dozen would proceed on until they considered it expedient to halt, when they would halt, dismount, conceal themselves and their horses, and lie in ambush ready to fire at any instant. Then two or three

scouts, mounted on the very best horses, would proceed forward from the vantage point thus attained to gather the information for which they were sent out. If attacked and pursued they would fall back upon the most advanced party, who would receive the pursuers with a deadly fire, which would at least check them until the advanced party could remount and fall back upon the support lying in ambush still further in the rear. The advantage in using the large patrol lies in its protection of the scouts against smaller patrols of the enemy. The scouts could thus proceed rapidly and with greater certainty of arriving, and, having so considerable a support in so advanced a position, would naturally operate with more confidence. Smaller patrols can often operate to advantage upon the same principle.

To test the capabilities of your scouts throw them out as an advanced line along the front of an attacking force or along the front of an occupied field position. The twenty-four scouts of a squadron scattered along a front with an average interval of one hundred yards will occupy a front of twenty-three hundred yards and cover still more. Send them two or three thousand yards to the front, or even farther, either mounted or dismounted, or some mounted and others dismounted, all depending upon the terrain and other features of the situation.

Individual scouts can often attain positions well advanced and advantageous in other ways without being observed, from which effective fire can be delivered as a cover to the advance of our own troops. They can always give valuable information, especially of an unknown terrain, saving many a blunder in the advance and attack of our troops. Scouts signal back from positions in which they will be unobserved by the enemy. In a situation of that sort a few cavalry hussars would be invaluable.

In covering the front of a field position scouts occupy advantageous positions before the enemy arrives; in fact, they may annoy an enemy for miles before he comes within range from the position being defended. An enemy so annoyed does not move to an attack with the morale of troops whose advance has been unopposed until they arrive within the zone of effective fire.

# VIII.

Regimental scouts or independent bodies of scouts of any kind, especially when taken from the ranks, are not recommended. The very nature of the duties of scouts point to their not being organized into a command. It requires them to be scattered, and it requires independent, individual action. Again, no captain is at all likely to pick out the best men in his troop to be detached for prolonged service elsewhere. The captain, if anyone, knows the best men, and if they are habitually left with him he will always have ready, even when upon a peace footing, six well-trained excellent scouts, and they will always be found scattered along the front just as they should be, and with their own organizations behind them and backing them up and keeping track of and appreciating the value of their services. Such conditions are ideal. If any commander wants a band of scouts for any special service during an engagement or at any other time, as for instance, to reconnoiter the flanks and rear or the outposts of the enemy, he has only to turn to the nearest squadron, regiment or brigade, depending upon the number he requires, and they can be supplied at once. Each squadron will have twenty-four, each regiment seventy-two and each brigade of three regiments two hundred and sixteen. The scouts will then always be in the right place. because each organization has its proportion of them, and no matter what part of the command is in front the scouts will be there with them.

When cavalry is on screening duty, rarely more than one squadron to the regiment will be on the line of contact, the other two squadrons being in support from two and one-half to five miles in rear. It is the squadron in contact or seeking contact that leads "the strenuous life," and the scouts of that squadron are its most active members. Scouts are human and need rest and relief from this, the most exacting and fatiguing work that falls to the lot of a soldier. When the squadron is relieved its scouts should be relieved with it and replaced by the scouts of the relieving squadron; otherwise they will be worn out physically and mentally by unceasing exertion and strain, and will no longer possess the very qualities that recommended them for

selection as scouts, and will be little better than any other tired or exhausted soldier.

Leave the scouts with the troops, to be detached only in emergencies. When on duty as contact troops, the scouts are needed with their troops and the information they obtain should be sent back through the regular channels of their troops. This method will best insure the prompt arrival of information at its destination, where only it can be of use.

The scouts of a troop in campaign should be given much liberty and many privileges to compensate for their greater exposure and more arduous duties and to make the service more attractive. Men who are fit for the work take a pride in it, and enjoy it up to the limit of their endurance, and must be trusted. The number instructed need not necessarily be limited to six to a troop; the more there are who possess these special qualifications, the better; but as a matter of expediency the liberties and privileges accorded scouts can not be extended to any but those regularly detailed as such.

If a non-commissioned officer, or anyone else, understands clearly what he has to do and has been thoroughly instructed in the proper method of doing it, what he can accomplish is only limited by the possibilities of the situation. But, with an imperfect knowledge of what is required or of the proper method of accomplishing it, desired results cannot reasonably be expected. So, when a patrol or a scout is sent out upon any mission it is clearly essential that the one to whom it is entrusted should be given the situation as completely as it is known to the one who sends him, and should have clearly explained to him what it is that he is expected to accomplish.

# DEVELOPING A RESERVE ARMY.

BY JOHN S. BARROWS, LATE CAPTAIN FIRST SQUADRON CAVALRY, M. V. M.

ONE of the great problems which confronts the friends of the Army of the United States is how to secure a citizenship of trained soldiers without increasing the burden of expense of maintaining a greater army than is needed during times of peace. Several solutions or partial solutions are offered; notable among them the development of rifle clubs among civilians, to be fostered by the National Government; the extending of military training among school boys, conscription, etc.

None of these plans meets the requirements or would serve to make soldiers. The rifle clubs would result in preventing the enlistment of smart young men in the militia; the so-called military training of school boys will have to be revised and remodeled if it is to make soldiers, as the present methods, except in strictly "Military Schools," keep young men out of the militia, or they gladly forget all they learned as quickly as possible; conscription has been proved a failure, as no man fights sincerely with a halter about his neck,

There remains to be tried some method of training men to be soldiers, and then retaining them in reach for service should necessity arise; a method of granting leave for extended periods, with little restraint. Such a method is herein proposed.

It must be understood that there is no better school of the soldier than in the ranks of the soldiers. The military schools are limited in their opportunities, and the school battalions are of little value to the required end. The man must do a real soldier's service in order to fully understand the requirements and methods of service. To this end compulsory service in the militia should be required of all men qualified or not exempted by the needs of society and government. The exemptions of certain professions should always be respected; the inability of certain individuals to perform such vigorous service will always prevent a certain number, but there remains a large number of able-bodied citizens who should not be excused from learning the duty of a soldier, as they would learn the duty of any citizen.

The liberal protection of a republican government, giving to citizens the widest fields of life, under the easiest conditions, is entitled to a return from the citizen, beyond the mere payment of a poll tax. The advantages of living in a free country are such as to demand a cheerful remuneration in some manner best adapted to the possible requirements of the country. The military service as today administered affords a liberal education in common sense which should make a citizen of more value to himself and his community than had he not received this training. Therefore service in the militia or citizen-soldiery of the states should be required of all able-bodied men not otherwise and by statute exempted.

The period of liability to service should be as now exists in the states: between the ages of eighteen and forty-five years, with every preference for the youthful years. At the same time it is understood that this period is the period of most active effort in developing mind and body, and the high tension of the times gives scant time in which to become fitted for profession or trade, and to crowd into this period any military service may seem to be requiring too much, but under the proposed method the school and college curriculum must be adapted to permit the military training to have a part, even if some pet branch of scholastic effort be set aside; at the same time, the time devoted by the student to military drill and service is the necessary diversion and relaxation from study which will help to keep a sound mind and sound body in tune.

Granting, then, as is perfectly possible, that the conditions of youth may be made adaptable to military training, the term of compulsory military service should begin at the age of twenty-one. If the young man desires to anticipate by entering the service at eighteen years, so much the better, but by the time the citizen has reached his twenty-first year he is to be

enrolled and assigned to duty. He will be mustered into the service for three years, unless sooner discharged for cause, and therefore will be twenty-four when he is entitled to his first discharge; even the young man who enlists at eighteen will not be entitled to a discharge before he reaches the age of twenty-four, and this three years of compulsory service with weekly drills and at least one week each year in field service will constitute the citizen's lawful military schooling.

At the age of twenty-four the period of reserve duty begins. The army of the United States should be classified as follows: The regular or professional establishment will be known, as at present, as the United States Army, though that term would comprise all the land forces in time of war. The part of the army which was maintained by the states, in which compulsory service will be required, will be the United States Army Reserves, until called into service with the regular soldiers, and the association would be as is now provided for amalgamation of the two branches of the army.

The "Reservist," having completed his three years' service, may reënlist should he so desire, but should he prefer to give the remainder of his time to his life-work he would be transferred to the "National Guard," in which he would be retained for a period of six years, the only requirement for service being that he shall report at two dates each year, at certain places, for inspection and further correction of his enrollment.

Having completed the six years' service in this division of the standing army, and being thirty years of age, he would then be transferred to the "State Guard," for a period of five years. In this division he would be obliged to report but once during each year.

Being now thirty-five years old, he would be transferred to the "Municipal Guard," in which he would be enrolled for five more years, responding to one assembly each year.

On completion of this service, and being forty years old, there would follow five years of service in the "Home Guard," and at the age of forty-five he would receive his final discharge and exemption from further service, or military obligations of any kind.

The duties of these various divisions of the enrolled service would be of this nature: the "National Guard" would represent the volunteer army under the present conditions; the body of soldiers to be raised for war service after the indraught of the "Reserves" had been exhausted, but differing from the present volunteers in the fact that they would all have had three years' military training, and would therefore require less delay in mobilization camps and depots, they would be ready in a very short time for service with the army in the field, a possibility not for the volunteers under the present conditions. The service of this division in times of war would be for the war, and without further mustering, but they would not be called for until the emergency demanded their service.

The division known as the "State Guard" would not be required for service outside the borders of the state in which they were residing. Nothing would prevent them from volunteering to join the "National Guard" in time of war, but as a division they could not be required for active service outside the home state. That they might be ordered for active duty to resist invasion might be possible, manning the coast-line to meet a foreign enemy as supports to the United States Army already in the field.

The "Municipal Guard," which is to be composed of the men of thirty-five to forty years, would be admissible to the war army as individual volunteers, going into the "National Guard," but as a division of the standing army of the country their service would be limited to the city or town of residence, being liable to call to sustain and supplement the police in times of local disturbance, and, being men of mature age and thought, would be a marvelous steadying power in times of conflagration and misfortune, assisting in maintaining order, suppressing insurrection.

It would be improbable that many individuals from the "Home Guard," that division of those men of forty years and above, would seek active service in the war army, but they would be of immense value to the nation as furnishing relief bodies for the care of the soldiers in the field; in providing sanitary relief, and looking out for the comfort of the war

army. Being men who have had military training at an earlier period of their lives, they would undertake any service with system and method, which would be established with unusual promptness. This division would provide and equip hospitals and ships, furnish to the soldiers in the field literature, food, clothing and the comforts to lighten their service and make easier the sacrifice. Attention to the families of soldiers would come to this force, and it would be an army of angels-of-mercy, though if the strenuousness of the situation was such as to have taken out the "Home Guard" into the field, provisional companies to supply the place of the "Municipal Guard," or even of the "State Guard," in which case the division would act under the orders peculiar to that service.

In order to encourage reënlistment in the "Reserves" a method of gaining time on those who did not could be adopted, working out as follows: the man who at the age of twenty-four had completed his first three years' service if reënlisted for three years, at the age of twenty-seven when discharged, should be passed into the "State Guard," thus gaining three year on his fellows towards a more limited service.

Should he reënlist again for three more years, at the expiration of service, being then thirty years old, he should be passed into the "Municipal Guard," thereby gaining five years over the others, who by the ordinary course would not be eligible for transfer until they were thirty-five years old.

Carrying it still further, by another enlistment of three years he would be transferred to the "Home Guard" at the age of thirty-three, having secured that still more limited service seven years in advance of the ordinary time.

In the case of officers who were obliged to quit the "Reserves" for sufficient reasons, they could be carried as officers of the other divisions, their apportionment being according to the age standard, fitness, etc.

The maintenance of these divisions would be made possible by the compulsory reporting of the men at the stated times and places. Those reporting would receive indorsement of the fact on their papers. In each town and village the post office would accept the papers. At all elections presentation of these

papers would be necessary in order to receive the ballot, and the lack of indorsement, showing neglect to report at the proper time, would subject the bearer to an established fine, before liberty would be granted, immediate imprisonment being inflicted if the fine was not immediately paid. Men who feel that their physical condition might be such as to warrant their discharge from the service before the age limit, could secure examination by military surgeons, and such rejections would entitle the man to *Invalid Exemption*, with a nominal pension for life. Rejection for the good of the service, which might follow arrest for misdemeanor or other trespass of civil rights, would deprive the man of certain civic privileges, or subject him to fine or imprisonment or both.

There would be no limitations of locality. The man who began his service from one town in one state might receive his indorsements in any other locality, there being no duplication possible, so the number of men enrolled would always be correct.

In all localities where military organizations exist, the headquarters would be the rallying and reporting place of the graded reserves, and the local commander would be the officer in charge of all inspections and assemblies.

Once this system became established, it would be practically a method of a military census rather than a mobilization. The reporting of the individuals would be as much for their benefit as for the advantage of the military authorities. The future location of the man would be known to a reasonable extent; his physical condition would be ascertained, and his retrogression from grade to grade would be accomplished with but little clerical effort. Each man, on completing his service in any grade, would be given a discharge showing therein his assignment to the next grade, and indicate the natural rallying place and time for reporting. Inability to reach that appointed place would permit the man to report at the nearest point where his papers would be indorsed.

In order to outfit these reserves, supply depots of arms and equipments would be established at certain convenient points. At all times the "Reserves" would be supplied with

the same arms and equipments and uniforms as the regular establishment, and a supply sufficient for the "National Guard" could be kept at the depots. For the "State Guard" the best obsolete weapons would be deposited at their centers, and the more obsolete arms could be retained for supplying the needs of the other divisions should they be required.

The plan suggested and indorsed by some officers of the regular establishment of organizing and maintaining by Government patronage citizen gun clubs, under the present conditions, is most ill-advised, because it cheapens the advantages of the State military organizations, but under these proposed conditions would be a correct effort, for the encouragement to be marksmen would then be given to those men who at present would not take interest, and at the same time the practice would not injure the efforts of the other grades. The entire result would be beneficial, for it would result in greater care in the use of firearms, in improved eyesight, in better health and increased activity and renewed vigor of manhood; at the same time there would be a marked influence on the future generations, causing rifle ability to become an inherited accomplishment, making the future soldiers born soldiers in every sense of the word.

The expense of maintaining such an army on paper would be considerable, for they would require payment on all assemblies and inspections. The payment should be nominal and approximate to the sum paid for jury service. The payment should be by cheque issued by the military or Government representative, on presentation of the papers of the man, the payment to be secured at a National subtreasury, and the paper to be negotiable as an ordinary bank check, but only when presented within a certain period.

The necessity of drill in tactical matters for all divisions beyond the "Reserves" would be unnecessary. The knowledge gained in those ranks would never be forgotten, and a few hours would recall enough for all necessary purposes, once any division was formed in ranks. The "Reserves" would continue as the militia of the present, performing at least forty-eight periods of drill each year, and a field service.

The result of this method of enrollment would be to make the American nation, not a military nation per se, but a nation of soldierly men. It would not be a nation of soldiers, all wearing the uniform, with a slavishness to the uniform that has developed such farcical conditions in certain lands, but a nation recognizing the value and use of organization, which would be an important step in education; in better respect for authority; in better administered authority; in greater respect for the flag of the United States; and it would give to the world a power that would live in perpetual peace, because it was always prepared for war, being completely walled in by a wall in which every man was a brick.

The apostles of peace go up and down the land crying for peace and disgracing the records of their ancestors and besmirching the history of their country by their efforts. Such a preparation for war would teach all men what war means, what it costs, and what would be expected of them. The great standing army of citizens would be reason enough for peace, because they know its value without the goading of demagogues.

Teach a nation what war means and there will be no war. Cry "Peace" and war will follow.

# MORE RESPONSIBILITY FOR THE TROOP COMMANDER.

BY FIRST LIEUTENANT B. K. EDMUNDS, FIFTEENTH CAVALRY.

APTAIN COOTES, in the March number of The Journal, indicates that there is too much interference with the troop commanders on the part of the post commanders. This is without doubt true, but the trouble goes much deeper than the post commander and permeates our entire service. It is the old question of a centralized system vs. a decentralized one; our authorities make rules rather than ask for results, and the post, even higher, commanders are as much the victims of a poor system as the troop officers.

Let us examine the making of the two systems as applied to the cavalry arm. Assume:

Point 1. All training in peace should be devoted to making the troops more efficient in war.

Point 2. Cavalry in war should be trained in:

a. Mounted fighting, including horse training and care of horses, the use of the mounted arms, maneuvering of the units, and cohesion at fast gaits.

b. Reconnaissance and field work, including messages, patrols, field cooking, camp sanitation, etc.

c. Dismounted fighting, including the individual use of the rifle and collective training in attack and defense.

# I. "THE DECENTRALIZED SYSTEM."

Department commanders call attention of post commanders to Points 1 and 2, and state that the Department inspection in the late fall will be a general one, including all kinds of training.

Post commanders call attention of squadron commanders to Points 1 and 2, and state that the inspection by squadron

commanders at the end of May will cover dismounted training; at the end of June, individual training and dismounted drills; at the end of July, the individual use of arms, mounted, individual horsemanship and swimming; at the end of August, jumping, cross-country work, troop and squadron drills.

He also states that there will be a month march in September; that horses should be hardened to weight carrying by that time; that instructions should be given during the march in individual cooking, camping expedients, etc., and that the practice march will include problems in minor tactics.

He also states that the work after the march will be under the direct supervision of post and regimental commanders and will include maneuvers of as large commands as the size of post will allow.

# II. "THE CENTRALIZED SYSTEM."

The various commanders issue orders somewhat as follows:

- 1. Troop commanders will see that every man has twelve hours' instruction a year in first aid.
- 2. Troop commanders will inspect their men's feet once a week.
- 3. All officers will have three hours' instruction a week in packing until qualified.
- 4. Troop commanders will inspect for ammunition once a week.
- 5. Every man shall have at least two days' instruction a year in cooking the haversack ration.
- 6. There will be an athletic field meet once a month in each post.
- 7. Each troop will have six days' instruction a month in field work. Two of these will be night problems.
- 8. Troop commanders will see that their horses are instructed in swimming.
- 9. There will be a day's practice march once a week, a three days' march a month, and a twenty-one days' march every year.

10. There will be a monthly rifle competition in each post.

11. All drills of what kind soever will be in full pack, etc., etc.

Work with a troop under the first of these systems would be a pleasure, under the second it is drudgery. Bewildered by the multitude of orders and regulations which must be complied with, the officers struggle along, their work constantly interrupted, unable to get even a week's connected training on any line without its being broken into by some arbitrary rule, which considers in no way the condition of the men and horses, or what progress they have already made. It is literally impossible to comply with all the orders issued. The first aid drill alone will take sixty hours a year of an officer's time, for there are absentees from every drill and these must all be instructed. To comply with the firing regulations in all the training laid down would take the entire practical season.

Under the first system, on the contrary, the training would be continuous and progressive, and at the end of a year a troop would be uniformly trained in all the branches, not partially instructed in a few of them. Moreover, an officer, knowing that he would be judged at each inspection by the showing made by his troop and that his efficiency report would reflect his neglect, would do his best to have his men and horses in shape. Such a system would act alike as a tonic to the worker and a spur to the laggard. I believe it was Maude, who, in one of his articles, remarked that the training in the different squadrons of the German army (in which the squadron commanders are given considerable independence) follows in each one about the same lines, and he ascribes this not to the supervision of higher commanders, but to the fact that each captain, independently, had worked out the best method.

A system of training worked out in such fashion must, indeed, be the best, and no better example could be given of the advantage of a decentralized system. Each organization commander closely watches his companions, every change made

by one is noted and tried out by the others, by whom it is adopted or rejected as it stands or falls in the actual test of service.

Under such a system we would have the brains of three hundred officers working together toward improvement, where now we have but one.



# Reprints and Cranslations.

# AEROPLANES WITH CAVALRY.\*

BY LIEUTENANT R. A. CAMPBELL, R. E. (AIR BATTALION).

THE employment of aeroplanes in war will for the present be very largely limited to tactical reconnaissance. In this rôle they will, of course, in no way replace the cavalry scout, whose capacity for resistance and screening they cannot imitate. Since their use will be, accordingly, supplementary to that of cavalry it is important to examine how they will best coöperate, and what organization will fit them for the work.

THE POWER AND LIMITATIONS OF THE AEROPLANE SCOUT.

Figuratively speaking, the function of the aeroplane scout will be to obtain information in "plan," while that of the cavalryman will be to fill in the corresponding "elevation."

The view of the airman is unrestricted but his military perspective is distorted. He can obtain a very accurate measurement of distances, but very little idea of height.

Thus the aeroplane scout can be properly used to obtain the relative positions of the enemy's forces and his information can be relied on in questions of numbers (at any rate, of formed bodies), but he can obtain very little indication of their "tactical strength" (less, in fact, than can be conveyed by plotting their position on a contoured map). Again, it may be laid down that "negative" information from the air can never be wholly reliable. The country needs to have been traversed

<sup>\*</sup>From the British Cavalry Journal of April, 1911.

by combatant troops to be certain that it is unoccupied. "Positive" information, on the other hand, will be of greater accuracy than that of cavalry, since it will be derived from direct vision, and not from fire effect.

Thus we can expand our former statement to the following general division of duties in reconnaisance:

The aeroplane will determine the enemy's distribution in plan, while the cavalry will complete this information by obtaining his tactical elevation.

Starting from this basis we can draw the main outlines of aeroplane reconnaissance,

- (1) It will be advanced reconnaissance.
- (2) It will be directed chiefly to obtain the location of the enemy's main bodies and other questions of military interest beyond the reach of the cavalry screen.
- (3) Its value as regards minor tactics can be but small, and it will, therefore, be of more importance to the central intelligence staff than to the local patrol leaders.

#### ORGANIZATION.

Paragraph (3) above will give the clue to the principles of organization necessary.

Until it is found practicable to transmit information from an aeroplane in flight by means of wireless telegraphy it must be necessary for the machines to return to some definite point easily found, there either to land with the information gleaned, or to drop a message for the cavalry to pick up. But it is through wireless telegraphy that the full value of the aeroplane will be developed, and we may assume that the war organization will be based on the distribution of wireless stations.

For work with cavalry, accordingly, it will be on the cavalry brigade headquarters, with its field wireless station, that the aeroplane will find its natural base.

We can imagine an aeroplane section detached to brigade headquaters from the central aeronautical park (with army troops). It will consist of from four to six aeroplanes, with a fuel supply and repair outfit sufficiently mobile to travel with mounted troops.

#### METHOD OF USE.

The aeroplanes will be dispatched under direct orders of the brigadier, with instructions as to the reconnaissance which they are to carry out.

It will probably be found best to allot patrolling areas and periods of observation based on the radius of action and fuel supply. By this means and by using relays a constant watch can be kept over a vast area. It would probably be a mistake to attach a machine to any definite reconnoitring patrol, since the chief use of aeroplanes will be found well in advance of the cavalry.

Only urgent information will be transmitted by wireless telegraphy during flight, and the remainder must be reported when the machine returns to the base for fuel replenishment and fresh orders at the end of its period of observation,

At all times the observers should be kept fully posted with latest available information and endeavors made to assign definite tasks to them rather than general injunctions to "find out about the enemy."

## EFFECT OF AEROPLANE CO-OPERATION ON CAVALRY TACTICS.

Since the aeroplane will, to some extent, relieve the cavalry of their *rôle* of reconnaissance, it is possible that cavalry movements will become more definitely tactical, as less extended formations can be adopted, and "maneuver" units can be directed, as a whole, against bodies of the enemy already located by aeroplane information. The ground scouts and patrols will, however, still be essential in order to supply such information as is unobtainable by the aeroplanes, for the condition of the terrain cannot be ascertained from the air and it will rarely be possible to say whether buildings, woods, etc., are occupied unless they are examined by patrols.

Since the brigadier will still further rely on his wireless station, both for information and communication to headquarters, he will be tied more strictly to its vicinity and will not care to move it much.

### MISCELLANEOUS CONSIDERATIONS.

(1) Messages.—The aeroplane is an excellent dispatch carrier, but the more important rôle should not be sacrificed for this object. It may be found convenient to have specially fast and handy machines for this special purpose, but messages to advanced patrols could conveniently be dropped from aeroplanes going out for reconnaissance trips.

(2) Distinguishing marks.—The aerial observers will undoubtedly have difficulty in distinguishing between friend and foe when cavalry is in contact. In case of single men and small bodies this will not matter, as they will not greatly concern the observer. Larger bodies, however, might have to carry some distinguishing mark, such as a flag held horizontally.

(3) Alighting at Headquarters.—Machines alighting at cavalry headquarters, as also those waiting there for orders, may render its position very conspicuous, especially to the enemy's aerial scouts. It may therefore be necessary to choose a base for aeroplanes at some distance away, yet in telephonic communication with the brigadier.

(4) Height of Flight, Etc.—Reconnaissance will be carried out at an average height of one thousand to two thousand feet, which should render them immune from any but special gun-fire. Cavalry staff officers can be taken up as observers if desired, but previous training in aerial observation is essential if good results are to be obtained. As a help in estimating distances, observers can be supplied with glasses with graticules adjustable for height.

# THE CAVALRY FIGHT AT JUDSJATUN. MAY 30, 1904.\*

BY COLONEL JOSEPH BREIT, AUSTRIAN GENERAL STAFF.

THE Japanese First Army (Kuroki) proceeded after the battle on the Yalu to the vicinity of Fonhuantschon and remained there nearly inactive until June 23d. The Japanese Second Army (Oku) landed in the Bay of Jentoa, not far from Pitsewo, commencing on May 26th, but in consequence of receipt of information that considerable hostile forces were advancing for the relief of Port Arthur, did not proceed toward that fortress, but faced about with its main body to offensively oppose the advancing Russian corps under General Stackelberg.

In order to gain more definite information as to strength and composition of the advancing enemy, the cavalry brigade at Akijama belonging to the Second Army was sent toward Wafangou on May 29th with orders "to reconnoiter in the direction of Wantselin and in the Piliho Valley to establish connection with the Tenth Division which had landed at Takuschan."

After the battle on the Yalu the east detachment, under General Sassulitsch, who was shortly thereafter relieved of the command of that detachment by General Count Keller, fell back to Foenschulin passes and remained there, also inactive, opposite the Japanese First Army.

On receipt of information that the Japanese Second Army had turned against Port Arthur, the decision was arrived at to make an advance in the direction of the fortress with a part of the main army assembled at Liaoyang; this decision was arrived at after lengthy discussions between St. Petersburg, the Czar's representative in the Far East, Alexejew, and the commander of the army, Kuropatkin, which latter strongly objected to such a procedure all through the discussions.

The forces designated for this move were to be assembled

<sup>\*</sup>Translated from Kavalleristische Monatshefte, by Harry Bell, M. S. E., Army Service Schools.

first of all in the vicinity of Haitschoen—Kaitschou. To protect that assembly and to simultaneously threaten the communications of Oku's army, as well as to draw at least some parts of that army away, General Stackelberg, commander of the force designated for the move to Port Arthur, received orders on May 27th to immediately send the cavalry brigade under Samsonow toward Wafangou; and orders for that were issued by Stackelberg the same day.

The organization of the Russian Cavalry Brigade was as follows:

Primorski Dragoon Regiment, Colonel Woronow, 6 squadrons; Eighth Siberian Cossack Regiment, Lieutenant-Colonel Alexejew, 6 sotnias; Forty-eighth Sotnia of Frontier Guards, 1 sotnia; Mounted Jäger Detachment of the Thirteenth East Siberian Rifle Regiment (Fifth East Siberian Division), ½ sotnia; Second Trans-Baikal Cossack Battery, 6 guns; one detachment of the telegraph company of the First East Siberian Sapper Battalion, 1 detachment; besides some few frontier guard detachments of the Brigade Sykow, which had remained in the vicinity of Wafangou after the retreat of that brigade along the railroad. These detachments were composed of the Forty-second and one-half of the Forty-third Frontier Guard Sotnia, and half a Frontier Guard Company (railroad guard), which were partly at Wantselin and partly at Wafangou and Wafantien.

Thus, General Samsonow had at his disposal a total of  $15\frac{1}{2}$  sotnias (squadrons), one-half frontier guard company and one battery. The numerical strength of the sotnias may be taken as 130, that of the mounted Jägers as 60; making a total of 2,000 mounted men, 100 rifles and 6 guns.

The brigade started from Kaitschou on May 28th and arrived on the same day in the best of condition at Sjunot-schung and at Wantselin on the 29th. All that was known of the enemy was that infantry and cavalry detachments stood on the line Pangedjan—Djatjatun, which occasionally sent patrols as far as Wafantien; according to Chinese reports a detachment of all arms was supposed to be at Latsischan. In the course of the afternoon of the 29th, hostile patrols were seen

in the vicinity of Wantselin. The intention was to have the brigade reach Wafantien on the 30th, to rest there for one day and to send reconnoitering detachments as far as the line Pulantien—Pitsewo, as well as to Futschou.

Communication with Kaitschou was kept up by means of the relays established by the frontier guards (one post to each five kilometers), as well as by the existing telegraph line.

Simultaneously with this movement the Japanese cavalry brigade (Akijama)—which, in addition to its orders, received instructions to send a detachment to Futschou and some patrols to Sjunoetschung—started from the vicinity of Pulantien toward Tschutsjatun and with its main body reached Latsischan about 4 p. m., May 29th; the squadron under Hasegawa of the 14th Cavalry Regiment had been sent toward Futschou. This brigade consisted of the 13th and 14th Cavalry regiment, 4 squadrons each, 2 machine gun detachments of 4 guns each, and 2 companies of the 11th Infantry Regiment. The numerical strength of the squadrons can be taken as 140 each; thus, Akijama had at his disposal about 1,100 troopers, 500 infantry rifles and 8 machine guns.

On the road to Latsischan the brigade commander learned of the enemy that about 200 of his troopers had been driven back not very far to the north of Latsischan by the brigade's advance guard. These troopers were a part of the Russian frontier guard, which retreated northward without allowing itself to become involved in a more serious engagement. Information was received at about 4 a. m. on May 30th that the above mentioned hostile detachment had passed the night in Tschutsjatun, and a Chinese report also stated that there were about 1,000 hostile troopers in Wafangou.

In consequence of this information Major General Akijama sent one platoon of the 14th Regiment on reconnaissance to Tschutsjatun and one of the 13th Regiment to take up connection with Hasegawa. At 8:30 a. m. the main body of the brigade started in the following order of march:

Advance Guard—One squadron of the 14th Regiment.

Main Body—One squadron and three platoons of the 14th; three squadrons and two platoons of the 13th Regiment; the

machine guns; one company and one platoon of the 11th Infantry Regiment.

Trains—Remained behind in Latsischan under guard of two platoons of infantry and one platoon of the 13th Cavalry Regiment.

The brigade arrived without mishap at Tschutsjatun shortly after 12 noon. Here the brigade commander received a report, sent at 10:40 a. m., from the vicinity of Wafangou, according to which that place was said to be barricaded and occupied by 100 men. The patrol commander sending the report added that he would continue to observe the front of the enemy and his lines of approach. Considering his decision, it appears that General Akijama had received other reports concerning the approaching enemy-these reports, however, only referring to the enemy's advance guard and advanced frontier guard detachments south of the Futschouho, for he decided to force the defile at Judsjatun and issued orders to the regimental commander of the 14th Regiment, Colonel Tojobe, to advance with the advance guard, reinforced by the remainder of the 14th Regiment, on Judsjatun; the remainder of the brigade to follow.

In the meantime the following had taken place in the brigade Samsonow:

Disregarding the already mentioned reports as to the proximity of the enemy, no special security measures were ordered to be taken for the march on the 30th of May; the general opinion being, according to a notation made in the diary by General Samsonow's adjutant general, Sipigus, that "According to information received on the 28th, which made it appear that the enemy was immobile on the line mentioned above, nobody thought an early contact possible." The marches were executed about as follows: About half an hour before the general start three officers' patrols were sent out, the center one marching along the march road and consisting of the officers, etc., to select the next quarters; the other two patrols marching on parallel side roads; the flanks of the brigade were secured by scouts. The center patrol was followed by a squadron or sotnia acting as advance guard, and this in its turn was followed by

the main body at an interval of about one to one and one-half kilometers.

The brigade reached Sjunschutun, six kilometers north of Wafangou, about 11 a. m. without mishap and without having gained any additional information concerning the enemy; here it made a short halt. When starting from there at 11:20 a. m. a cossack from the central patrol arrived with the verbal report that a fire fight was in progress at Wafangou; shortly thereafter the 42d Frontier Guard sotnia sent in a report stating that weak hostile dismounted cavalry detachments had driven back, after 8 a. m., the outposts of the 43d sotnia and had advanced as far as the Futschouho west of Judsjatun; that from there they had been driven off by one and one-half frontier guard sotnias and were now in the southern part of Judsjatun, from which position they could not be dislodged. The report also stated that the enemy was drawing up reinforcements.

General Samsonow ordered the trot to be taken up, and towards noon arrived at the crossing of the Futschouho south of Wafangou, where he issued orders to the Jäger detachment of the 13th Regiment and the 48th Frontier Guard sotnia to advance to the hills on the left bank of the Futschouho. At the same time, the Third and Fourth squadrons of the Primorski dragoons received orders to hasten toward the left to the hills at Louschagou and support the frontier guard detachments in action there. The remainder of the brigade marched into position on the level ground between Wafangou and the Futschouho.

In the meantime, Colonel Tojobe had arrived at the advance guard squadron and while that squadron and the platoon already engaged deployed partly in the valley at Judsjatun and on the railroad and partly on the hills west of the railroad for the fire fight, one and three-fourths squadrons took up the dismounted fight on the hill southeast of Judsjutan, and at 12:30 p. m. a slow fire fight ensued between the three squadrons of the 14th Japanese Cavalry Regiment and the four and one-half Russian squadrons, which had dismounted east of the Futschouho for the fire fight also. The detachments west of

that stream appeared to have taken up a favorable position under cover in the vicinity of Santsuir.

Shortly after the commencement of the infantry fire, about 12:40 p. m., the Japanese machine guns also opened fire from the small, steep hill situated halfway between Tschutsjatun and Judsjatun. The 13th Japanese Cavalry Regiment had taken a position under cover behind the group of houses in Hokaton, northwest of Tschutsjatun; the infantry remained for the present near the last named village.

About 12:30 p. m. General Samsonow received a request from Lieutenant Colonel Afanasiew, commanding the dragoon squadrons in front, to have the artillery fire on Judsjatun and the hills southeast thereof; thereupon the artillery commander was directed to select a position for his battery on the hill at Louschagou. At the same time the main body of the brigade resumed the march, crossed the Futschouho, but very soon again halted about opposite Huafangou. Here the brigade commander received a verbal report from the commander of the 42d Frontier Guard sotnia; as he could not gain a clear understanding of the situation, however, from that report, he sent his brigade adjutant, Sipigus, to the hill south of Louschagou for reconnaissance.

Shortly thereafter the battery commander reported that there was no possibility of the battery going into position on the steep hills at Louschagou, and also reported that the two Japanese squadrons were pressing the troops in Judsjatun very hard.

General Samsonow now directed the battery to go into position close to the railroad bridge, and issued orders at the same time to the commander of the Cossack regiment to send two of his sotnias to support the advanced troops in Judsjatun. The 4th and 6th sotnias, under command of Lieutenant Colonel Zeltuchin, were selected for this duty, and they started at once on the trot. They, however, could not prevent the retreat of the Frontier Guard detachments from Judsjatun; overlapped on both flanks, fired on by the Japanese machine guns (though at long range), and fired on by the hostile infantry since 1:15 p. m., the commander of the detachment fighting in the north-

ern part of Judsjatun decided on the retreat at about 1:30 p. m. and he succeeded in assembling the larger part of half of the 43d and 42d Frontier Guard sotnias behind the northwestern slope of the hill south of Louschagou, where the three dragoon squadrons had then arrived.

On the part of the Japanese, at 1:15 p. m. one platoon of infantry prolonged the right of the 14th Cavalry Regiment in the fire fight, while the remainder of the company took position on the ridge running farther to the east. Shortly after the infantry took part in the fire fight, the retreat of the Russian detachments from Judsjatun was noticed by the Japanese. Being informed thereof, General Akijama, who was with the 13th Regiment, ordered the commander of that regiment, Colonel Tamura, to pursue the retreating enemy with one squadron. The Second squadron was selected for this task; it, however, left one platoon behind. The squadron immediately started on the trot, proceeding west of the railroad toward Judsjatun. Shortly thereafter General Akijama received a report from Colonel Tojobe, stating that the enemy at and east of Judsjatun was about two and one-half squadrons strong. Thereupon Colonel Tamura was directed to follow his Second squadron with the remainder of the regiment, and Colonel Tojobe received orders to advance farther along the hills east of Judsjatun; the infantry was directed to conform to that movement on the right, and the machine guns were ordered into a position farther to the front.

The Second squadron of the 13th Regiment proceeded on the trot without stopping at the curve in the railroad south of Judsjatun, crossed the embankment and entered that village, which had already been evacuated by the Russians. When leaving the northern part of the village the squadron perceived a small hostile detachment, about thirty troopers, which it immediately attacked. This detachment had been left behind to cover the retreat of the Russian forces from Judsjatun, composed partly of dragoons and partly of frontier guard soldiers. About 1:40 p. m., when the Second squadron of the 13th Regiment had carried its attack to about 200 meters of the foot of the hills and pushed the enemy up that steep hill,

Lieutenant Colonel Zeltuchin appeared suddenly on the squadron's left flank with one of his sotnias deployed across the embankment and the other sotnia coming across the bridge at Lunwanmiao—he and his sotnias had been enabled to get so close to the squadron under cover of the embankment. Neither party knew of the other's proximity, and Colonel Zeltuchin had no time to take up the gallop and the Japanese squadron had no chance to avoid the shock, which latter, in spite of the slow speed, had an almost annihilating effect. Fully utilizing the favorable opportunity, the pursued Russian detachment faced about to revenge itself. After a short mêlee, which, according to statements of both sides, is said to have proven the lance superior to the saber, the remnants of the Japanese squadron fled back in a southeasterly direction behind the skirmish lines of the 14th Regiment and of the infantry, which had almost reached the north edge of Judsjatun and the hills east thereof. Fired on by these skirmish lines and by the machine guns, the sotnias under Zeltuchin faced about and retreated in a northerly direction with relatively small losses. This retreat, as well as the subsequent advance of the Japanese infantry and of the 14th Cavalry Regiment, seems to have induced the frontier guard detachments and the Third dragoon squadrons to also retreat.

In vain did the brigade adjutant plead with these detachments and with Colonel Woronow, who had in the meantime been sent forward with his Second, Fifth and Sixth squadrons to support the left wing, to again occupy the hill south of Louschagou; neither his pleadings, nor his direct orders, had any effect.

Shortly after the Cossack sotnias had fled, consequently just a few minutes too late, Colonel Tamura arrived on the battlefield with the remaining two and one-half squadrons of his regiment, and the platoon which had been left behind by the Second squadron, formed in two lines. Just about when attempting to ascend the hill south of Louschagou on the western slope, which was not quite so steep, Colonel Tamura's command was fired on in flank and rear by the 13th Regiment and the 48th Frontier Guard sotnia which had in the meantime

reached a small clump of woods on the west bank of the Futschouho southwest of Louschagou. The Third squadron of the 13th Regiment, suffering most from this fire, immediately faced about and fled in a southwesterly direction; the platoon of the Second squadron alongside of it, on the other hand, covered itself as well as the terrain allowed and held the hill. Very soon dismounted troopers from the First and Fourth squadrons, 13th Regiment, and two machine guns were sent to that platoon's support, which appeared to assure possession of the hill, and the Russians made no further attempt to recapture it.

Just about that time, very nearly one hour after receipt of orders to do so, the Russian battery opened fire on the above mentioned hill from a small piece of forest northwest of Louschagou. A Japanese machine gun detachment endeavored to silence this battery, but had little success as it never got the proper range, all shots falling far too short.

Shortly after 2 p. m. the leading elements of the 12th company, 11th Japanese Infantry, arrived on the hills southeast of Louschagou, the company having advanced in connection with the 14th Cavalry Regiment, and on a broad front. The Regiment Woronow estimated these three platoons to be from three to four battalions of hostile infantry and started the retreat via Louschagou without offering any serious resistance. The Japanese company was prevented from further advance on Huafangou by the Russian battery, which had fallen back for that purpose to a position about 1,000 paces farther north. "After the range had once been gained," says the Russian report, "the dark Japanese lines disappeared from the ridge and never showed up again."

Major General Akijama remained in the different positions gained in readiness for battle until 5 p. m., drew in his advanced troops at that hour, caused Judsjatun and the nearest hills to be placed in a state of defense, and fell back with his main body to Tschutsjatun for the night.

The brigade under Samsonow fell back as far as Wafangou, leaving security detachments south of the Futschouho on both sides of the railroad bridge.

The Japanese stated their losses as one officer and twenty-five soldiers killed and three officers and thirty-three soldiers wounded, a total of sixty-two. The Russians are said to have lost a total of thirty-seven men and forty horses.

#### COMMENTS.

The tasks set the two cavalry brigades were entirely different. The Japanese brigade was sent to the front for far reconnaisance and for establishment of connection with the neighboring group, while the brigade of Samsonow had explicit orders to threaten, as quickly as possible, the line of communications of the hostile army, which had its back to the Russians, and to draw on itself at least parts of that army. The more the brigade succeeded in gaining room to the front, the better it would execute its additional task, which consisted in securing the concentration of the corps under Stackelberg between Haitschoen and Kaitschou.

The solution of the task set the Russian brigade required a rapid, uninterrupted advance and an offensive, regardless of consequences, when encountering equally strong or inferior hostile forces, in order to bring about as much confusion and disorder as possible in rear of the hostile army. Akijama, on the other hand, was enabled to avoid any encounter of a doubtful outcome and still solve his task by means of his far advanced "feeling" organs, i. e., his reconnoitering detachments, should he be successful in driving back larger hostile cavalry forces, the further continuation of his task would naturally become more simple and easier.

The actual events, as discussed above, but especially the attitude of both cavalry forces after the engagement at Juds-jatun, justify the belief that General Akijama acted entirely correct in view of his orders, although he would have done much better had he acted more offensively; and that General Samsonow did not act correctly, in consideration of the situation and his numerical superiority, during and immediately after the first contact.

It was the duty of the Japanese brigade, enjoined by its orders, and of the Russian brigade, in its own interests, to reconnoiter strategically, i. e., in the most thorough manner, at least the terrain between the Piliho and the Gulf of Liaotun. In the sense of our regulations information squadrons (or detachments) and independent information patrols ought to have been sent out far to the front from the main bodies: the Russians sending at least one patrol in the direction of Kaitschou-Futschou-Pulantien, one along the railroad, one from Kaitschou along the ridge of hills as far as Ljudauhe and from there farther into the Tasaho valley, and finally one along the Piliho valley as far as Pitsewo; the Japanese sending patrols in reverse direction. General Samsonow, however, probably in consideration of the fact that frontier guard detachments were along the railroad, took no steps at all for far reconnaissance, while General Akijama did send one information squadron via Futschou, but for the rest contented himself with working with patrols-which were not sent out so very far-which served more for the purpose of tactical than strategical reconnaissance. It is unknown what measures General Akijama took to execute his task of establishing connection with the group under Kawamura (the 10th Division).

Thus it seems clear that we cannot say that the measures taken on either side were either sufficient or correct. The entire service of reconnaissance was insufficient, bringing no material results, for neither side endeavored to ascertain conditions with the approaching hostile cavalry nor the infantry bodies behind it. Akijama's sending out the two platoons at 4 a. m., May 30, was more for the purpose of tactical than strategical reconnaissance; one of these platoons was sent along a route already covered by one information squadron; a small patrol would have been sufficient, if it was the intention to merely establish connection with that squadron.

We are justified in expecting from our larger bodies of cavalry a more extended strategical reconnaissance than appears in this case; we find but very few traces of such farreaching reconnaissance on the part of the Japanese; as, for instance, the appearance of patrols at Wantselin the afternoon of the 29th—that is, about 45 kilometers distant from their main body—and no traces at all on the part of the Russians. Information gained through native spies, of course, offset to some extent the absence of strategical reconnaissance, but it was entirely too risky to rely on such sources exclusively.

Concerning the tactical reconnaissance, we may say that the Japanese executed that correctly and sufficiently. General Akijama timely received information of first contact with the enemy; Chinese spies gave him further information concerning the hostile group farther in rear; it is true that the latter information in regard to strength and exact location of the enemy was inaccurate and uncertain, but the main information that the enemy was already within striking distance was conveyed. It is the duty of reconnoitering detachments and patrols to prove the correctness of such information gained through spies and to supplement it, which could have easily been done by the patrols already in the vicinity of Wantselin.

The Russians were very nonchalant in regard to tactical reconnaissance. In spite of the report received that the enemy was within striking distance and that hostile patrols showed themselves near the villages where the night was to be passed, the march was carried on on the 30th, when contact with the enemy was almost a certainty, in the same manner as would have been a march in peace maneuvers; i. c., only with quartermaster's detachments in front, and without having special security and reconnoitering detachments sent ahead. The security in which General Samsonow believed himself to be still on the 30th, because the enemy had been reported to be stationary on the 28th in his position heretofore occupied, is partly to be wondered at and partly inexcusable. What are forty or forty-five kilometers, which here separated the two sides, to cavalry, or even to infantry? With an opponent for the main part composed of cavalry, the situation changes not only daily, but almost hourly. The excuse that frontier guard detachments were ahead in front is insufficient as reason for not sending out reconnoitering detachments, at least during the march on May 30th.

It is a strange fact that General Samsonow received information—and correct, at that—of the presence of the hostile detachment, composed of all arms, at Latsischan only through Chinese spies.

In consequence of insufficient measures taken for reconnaisance, General Samsonow, on his arrival in Sjunschutun at 11 a. m., had no further news concerning the enemy, in spite of the fact that an engagement was in progress since 8 a. m. in the vicinity of Tschutsjatun, only fifteen kilometers distant; neither did he know that the main body of the hostile cavalry was approaching that place at that hour.

The fact that the Japanese patrol which gained contact with the most advanced Russian detachment did not cut loose from it, but clung to its heels and thus ascertained the place where it was to stop that night, may be cited as an example of the Japanese manner of carrying on the near reconnaissance. It is also a remarkable fact that the frontier guard detachments—one and one-half sotnias strong—retreated in front of an unimportant Japanese force—namely, one platoon and one patrol—instead of driving that force back, and so retreated for a distance of several kilometers without offering any resistance until Judsjutan was reached, where the intrepid hostile small detachment was forced to halt.

The following is remarked concerning the strength, composition, organization and march of the main bodies of both cavalry brigades:

The Russian cavalry brigade, in view of the fact that General Samsonow did not call on the railroad company attached to his command, consisted of only cavalry and artillery; that under Akijama, of infantry and eight machine guns in addition to his cavalry. The Russian cavalry was numerically stronger than the Japanese—2,000 as against 1,100. The presence of artillery, though it appeared very late on the scene, came very opportunely to the Russian brigade; it was the artillery which set a limit to the hostile advance. On account of late arrival the artillery was of little use during the engagement proper; it occupied a bad position; from its position on the Futschouho plain it could do but little damage to the Japanese

on the hills south of Louschagou. On the other hand, the Japanese machine guns did not succeed in doing any damage to the Russian artillery on account of the long range, 2,000 meters.

The absence of machine guns and infantry was sorely felt by the Russians. The passive attitude of the Russian brigade may be ascribed to this absence, for at the very moment when the Japanese machine guns and infantry participated in the engagement-their number being, in addition, greatly overestimated by the Russians-the Primorski dragoon regiment, which on the whole did not show much spirit in the engagement, did no longer endeavor to hold its own. This example may be cited as proof that participation by infantry in cavalry engagements, wherever that can be done, may often become of great advantage; of course, the desire to have infantry in support should never be allowed to interfere with the offensive cavalry spirit. This does not appear to have entirely been the case in Akijama's brigade, for on the 30th Akijama marched his brigade at a walk-evidently to allow the infantry to keep up; he started from Latsischan at 8:30 a. m. and arrived at Tschutsjatun at 12:00 noon, thus covering but 16 kilometers in three and one-half hours.

The unusual late start made by Akijama on the 30th may be traced back to the desire to await results of the reconnaissance ordered at 4:00 a. m., which was, however, entirely unjustifiable.

Samsonow also does not appear to have acted energetically on that day; his brigade reached Sjunschutun—fifteen kilometers from its night quarters—only at 11 a. m.; this distance could be covered at trot and walk in one and one-half hours, at a walk in two and one-half hours, thus showing that he could not have started from Wantselin before 9:30 in the first, 8:30 a. m. in the second case. Samsonow's marches were very normal ones; on the 28th he covered a little over thirty kilometers; on the 29th, twenty-nine; on the 30th, about twenty-five. On the 29th, Akijama marched hardly ten; on the 30th, about seventeen kilometers. The order of march in both brigades was normal; in the Japanese brigade it appears that the machine guns were kept too far in the rear.

Measures taken in the Russian brigade for establishment of and keeping up communications to the rear were more than sufficient.

Akijama left his train on the 30th in Latsischan; he was perfectly correct in doing so; Samsonow could take his train along to Wafangou, because the presence of the half company of railroad guards there afforded sufficient protection for it.

The situation during the noon hour of May 30th is very important and interesting for both parties; during that hour both commanders received reports having a decided influence on the measures about to be taken. It must be ceded to be entirely correct that Samsonow took up the trot when receiving the report mentioned above, at 11:20, at Sjunschutun, for the first indication of any engagement being in progress should be the signal for haste. This report and one received shortly thereafter clearly indicated that contact with the enemy would undoubtedly ensue at Judsjutan should the frontier guard detachment be able to hold its position there for some time. otherwise in the vicinity of Louschagou. As the situation stood at 12:00 noon, General Samsonow could count on the first case, the more favorable to him, as by that time his advance guard squadron could easily be in the vicinity of Louschagou and as that squadron had not yet sent in any report of the appearance of larger hostile forces. In estimating the situation in this manner, it appears to have been possible (and undoubtedly better) to have continued the advance, sending out a right flank guard. However, General Samsonow undoubtedly believed the second case about to happen, i. c., contact with the enemy at Louschagou, and this caused him to order his main body to deploy immediately, i. e., behind the Futschouho. This was carrying caution entirely too far, considering that the opponent was but equally strong, or, rather, inferior in this case.

On the whole, Samsonow's march into position was correctly executed; in front a strong group (four and one-half squadrons) under protection of which the artillery could go into position and protect the deployment of the main body; to the right front, for protection of the most endangered right flank, one and one-half sotnias; *i. e.*, a body not too strong, which

could be used either defensively or offensively against the enemy's flank and rear, and which could become very useful to the main body in other ways. In planning this march into position, General Samsonow undoubtedly was imbued by the following thought: If the group in front succeeds in preventing the further advance of the enemy on the hills of Louschagou, I can advance to the attack when and where I choose with my main body, secured on its right flank, across to Futschouho into the plain along the railroad; on the other hand, should the front group be forced to fall back in front of a superior enemy, the main body can attack the pursuing enemy at the most favorable moment, when he attempts to cross the easily forded Futschouho.

Although we must approve the general arrangement of the march into position, we must call attention to two errors committed; the battery, instead of going into position to the rear, should at once have been sent forward to the hills at Louschagou, and the brigade commander ought to have immediately hastened forward to his most advanced group to gain personal knowledge of the general situation, of the strength of the enemy and the general character of the terrain. Though the higher infantry commander can and even must remain in the rear to direct the battle, the cavalry commander, at the very start, should be with the most advanced group, for only thus can he estimate the situation correctly, decide quickly and act on the spur of the moment, which factors are the base of success in all cavalry actions.

Samsonow's remaining in rear may be excusable in the start, for the purpose of giving orders to the main body as to the battle formation, etc., but after that was done he should have hastened to the front, and he did not do so even after receipt of Lieutenant Colonel Afanasiew's report and that of the commander of the 42d sotnia of frontier guards, was even more than an error, was almost a crime. Starting the main body, on receipt of the first report, was, of course, correct, but the commander should have hastened to the front, to some good observation point. Sending the brigade adjutant ahead on receipt of the second report, at such an important moment, is

more disadvantageous than otherwise, especially as in this case the otherwise brave Sipigus almost lost his head and instead of riding back after complete orientation and informing the brigade commander of the situation, gave all kinds of directions and orders in the name of the brigade commander—though we must say that his measures taken were, on the whole, correct. Had these orders, or similar ones, emanated from the brigade commander himself, they would undoubtedly have been carried out more efficiently by his subordinates. Sipigus' bad action had bad consequences. He had hardly left the brigade commander's side when the latter was assailed by all manner of disquieting reports: the battery commander reported that he could not get his pieces up the steep hills, and that, anyway, the advanced troops had been driven out of Judsjatun by two hostile squadrons. It appears that the latter factor made a greater impression on the battery commander than did the steep hills. And what did Samsonow do? Instead of coming to a forcible decision and attacking the enemy in superiority-sending his main body farther ahead in the direction of Judsjatun—he took but half measures in his uncertainty as to the situation; he sent but two sotnias to attack the reported two hostile squadrons, and he believed the battery commander's report that the hills were too steep to get up, and ordered the battery into a position where his own troops masked the battery's fire for a long time.

The first half measures was soon succeeded by others; very soon the rest of the dragoon regiment was let out of the brigade commander's hands for the "support of the detachments in front," and not with the task to at least try and attack the hostile wing. This left to the brigade commander, who, it appears, remained in the dark as to the true situation—Sipigus not returning—until the close of the engagement, only four Cossack sotnias, and it is not to be wondered at that he did not throw these sotnias into the fight, as he had a report that three or four hostile infantry battalions had appeared on the field. Thus it came about that, though numerically much superior to the enemy, he could not bring that superiority into decisive play at any point of the battlefield. According to how the reports arrived that hostile detachments were appearing on

this or that spot of the battlefield, he inserted small parts of his force; there was no appearance of a well thought out plan of battle or insertion of the combined forces.

How different would the result of the day have been had the brigade commander and the artillery timely arrived on the hills at Louschagou, which fact would have also spurred the dragoon regiment to more energetic action!

The intrepid attack of Zeltuchin should be specially commended. Considering the rapid advance of the group under Colonel Tamura, Zeltuchin's participation in the fight might easily have become exceedingly dangerous to him and his command, and for the reason that under just such dangerous conditions he formed the decision for his brave action his name deserves to be preserved in letters of gold in the annals of the Cossacks. It should also be stated that in this engagement the Cossacks, so severely criticised for their behavior throughout the war, performed their duties far more cheerfully and better than did the Russian cavalry in any stage of the campaign.

The Russian Jäger command of the 13th Regiment and the 48th Frontier Guard sotnia chose the moment of their interference entirely correctly and at a very opportune moment.

At the moment when the Russian brigade started its march into position. General Akijama came to the decision to force the Judsjatun defile, inserting his entire force. According to all appearances this decision was based on the supposition that only weaker hostile forces were at that place, and that a serious battle ought to be expected to occur only at the barricaded Wafangou-therefore, his orders to Colonel Tojobe concluded with the sentence that the entire brigade would follow him. But events happened differently. It is probable that information received subsequently of the advance of three hostile dragoon squadrons on Louschagou, and later the stubborn resistance of the hostile group at Judsjatun led to the supposition that the enemy intended to accept battle not at Wafangou but at and north of Judsjatun; consequently, Akijama changed his decision and ordered his brigade to march into position in the vicinity of Tschutsjatun; that is, while still behind the defile of Judsjatun, and in such manner as has been discussed above.

Concerning Akijama's decision and the march into position of his brigade, the following should be noted: After the enemy—consisting of cavalry only—made use only of rifle fire, it appears clear that Colonel Tojobe also caused his detachments to dismount to fight on foot; for this reason it was entirely correct to hasten the machine guns to him as quickly as possible; it would have been best to have attached them, or at least a part of them, to his command in the very start. It is very remarkable that Akijama kept his infantry so far in rear in spite of the knowledge he had that a fire fight was in progress; it, best of all, could have broken the resistance of the hostile group fighting at Judsjatun. Fatigue could hardly have been the reason for keeping the infantry back, for that day it had covered only sixteen to seventeen kilometers at a slow rate of march.

The place for the 13th Regiment to march into position was correctly chosen—behind the left wing, where the cavalry had very good terrain in front; probably, however, it might have been better to have placed that regiment farther to the front, covered in a depression. The worst feature of the entire matter was that Akijama, similar to the Russian commander, remained too far in rear; he ought to also have been, at the first signs of contact, on a hill in front where he could have had a good view; and had he chosen such a point of vantage it is very probable that the entire march into position would not have taken place as discussed above, for, oriented as to the situation by personal observation, he could easily have come to the decision to execute the march into position, not in the defile itself, but rather-and which would have been better-at the entrance to the defile, which was fully guarded by the 14th Regiment.

To the fact that Akijama was too far in rear may be ascribed the defeat of the Second squadron, 13th Regiment. It was the bounden duty of the 14th Regiment, which was in front and supported by infantry, to commence the pursuit of the retreating enemy; because Akijama prematurely sent off the above mentioned squadron, the later on correctly ordered combined attack of the entire force at his disposition had no de-

cisive effect. Had the Second squadron, 13th Regiment, advanced to the attack on a line with and abreast of the remainder of the force. Colonel Zeltuchin would not have found as tempting target for attack as he did find, and the brigade, attacking combined, would have had easy work in taking the hill south of Louschagou and later on the one east of that place. for, judging by their later behavior, the frontier guard and dragoon detachments would hardly have offered a serious resistance. One thing was omitted in the well ordered attack; i. c., the left flank was not secured by sending at least one squadron along the west bank of the Futschouho and the creek flowing into it at Judsjutan, to prevent surprise from this direction, which the Russians prepared for Colonel Tamura as a matter of fact. This forgetfulness is the more remarkable, as it is general rule to have a larger flank protection in battle of any larger bodies of cavalry.

Different from Samsonow, Akijama's decision was correct; the plan of battle was also correct; however, the execution was faulty.

Praise is due to the energetic attack of the Second Squadron, 13th Regiment, as well as to the correct action of the platoon attacking later on. Of course, the capture of the hill south of Louschagou and holding it until the arrival of reinforcements in the face of a superior enemy was made possible only by the passive attitude of the enemy. The ride of the squadron through Judsjatun was very dangerous, as it could not be known what hostile detachments might be in concealment; it is always more advisable in such cases to ride around the village instead of through it.

Mention should be made of the fact that the machine guns, as has been stated, were unable to do any damage to the Russian battery; it is stated that some of the bullets from the machine guns struck a few paces in front of the battery. It was either not known that the bullets fell too short, or the range of the machine guns was no greater than 2,000 meters. At such long ranges, it is certainly not easy to hit the target, neither is it easy to correctly control the machine gun or infantry fire.

As in this engagement detachments of only from one to two, or at most two and one-half, squadrons participated mounted, the assumption seems justified that this engagement does not portray a battle of larger cavalry masses, and it is also remarkable that not cavalry but infantry brought about the decision in this fight.

The faint-heartedness displayed during the entire engagement by both parties is apparent also after conclusion of the fight; Akijama does not think of pursuit and Samsonow appears to have been glad that the opponent left him in undisputed possession of Wafangou. This does not indicate the true cavalry spirit.

After Akijama had convinced himself that he had no more to fear from the enemy, he allowed his troops to go into night quarters. To remain with his troops at Judsjatun, at the exit of defile, appeared to him to be too risky and he led his main body back to Tschutsjatun; the enemy, though not entirely defeated but merely driven back, showed less apprehension, for he remained in the immediate vicinity of the battlefield.

The losses sustained were very small; the vanquished lost only 2 per cent, the victor only 3.5 per cent; the larger part of that falling to the lot of the Second Squadron, 13th Regiment.

## COMPOSITION OF ADVANCE GUARDS OF ARMIES.\*

TWO different opinions are held by our military writers concerning the composition and strength of advance guards of armies. One advocates advance guards composed of the different arms according to regulations and the other objects to the addition of infantry and wants only cavalry divisions sent ahead of the army corps against the enemy.

It is remarkable and interesting that both parties base their views with apparent justification on Napoleon's procedure, who always chose the composition of his advance guards according

<sup>\*</sup>Translated from the Militar Wochenblatt No. 31, 1911, by Harry Bell, M. S. E., Army Service Schools.

to the terrain, the peculiarities of the arms and the object to be attained, i. c., in nearly every case he had a different formation.

Napoleon was opposed to a cast iron formation for the advance guard; his actions were based on interior reasons. We ought not to adopt a regulation formation, but should endeavor to learn to understand the presumptions and conditions governing action in war. Three questions must be answered in this:

- 1. What is the purpose of the advance guards of an army?
- 2. What means have they to attain their object, peculiarities of the different arms?
- 3. What changes ought to be made in the utilization of the means at hand to conform to terrain and object in view?

Opinions which have not paid proper attention to these questions are of no account, they are without any stability.

1. The Purpose.—It is the task of the advance guard to carry on the reconnaissance against the army and at the same time furnish the screen and security to the movements of its own army. It may be charged with delaying the hostile advance, to prepare the battle of the main body or to prevent the enemy from interfering with the deployment of the main body for battle. To this are added as a rule a series of secondary tasks, which are manifold.

As long as there is no chance of immediate contact with the enemy the main task of the cavalry will be reconnaissance. At closer approach the necessity increases for screening, which may gradually change into security service. But this sequence of these tasks is not the general rule in all cases, for the peculiarity of the strategic situation may entirely reverse it and make the screening of the movements of an army (Murat 1805) or the security service (Napoleon, June, 1807) the main task. This will be the rule at the commencement of operations where both armies march into position on fortified frontiers (frontier guards). The case that the situation may *suddenly* change should also be duly considered, as happened in September, 1813, when the Silesian army, engaged in pursuing Macdonald, was suddenly compelled to face about by Napoleon appearing on the scene; the army advance guard became the army rear guard.

Its task was to prevent the entire Silesian army from becoming engaged in a general battle. A great diversity of means to be employed naturally springs from the diversity of the tasks to be performed by advance guards (which are partly offensive and partly of a defensive nature) as well as from the diversity of the theaters of war.

2. The Means.—Of the three arms the cavalry is the quickest. It is the arm of surprise and as it can appear rapidly and disappear just as rapidly, reconnaissance is its main duty. It alone is suited for that, but must receive, through addition of artificial means of communication, the capability to timely furnish the supreme comander the results of its reconnaissance. By arming the cavalry with long range carbines it has become entirely independent. In addition to the charge it may resort to fire fights and can carry on defensive operations. In the employment of its firearm its celerity is put to good account in the matter of appearance and disappearance and mobility in the conduct of the engagement. Each and any schematic employment of the carbine in a confined terrain is contrary to the proper spirit of the arm, which must rely for any great success in the main on surprise. Success in a fire fight must be achieved before the enemy learns he is engaged with cavalry; fire fights lasting for hours have to be avoided by cavalry wherever possible, for its fire activity is based on far different principles than is that of the infantry, which can carry on long fire fights under entirely different conditions and suppositions. The losses sustained by cavalry, seeing that riderless horses require to be led and the leaders of them become useless in other regards, are double those of infantry, and thus every intense fire fight may become a serious crisis for cavalry which may sadly interfere with its subsequent activity in the matter of reconnaissance. As the cavalry arm is costly and as the losses are difficult to replace each and any wrong employment of cavalry is far more serious than is the case with the infantry. Cavalry must never expect from fire what it may achieve through mobility; still, proper attention should be paid to the fact that the utilization of the horse becomes more difficult with the increasing difficulty of the terrain.

Infantry, suited just as well for attack as defense, can be employed in any kind of terrain and is unsuited only to such military tasks as require celerity; it requires cavalry support in the matter of far reconnaissance, but in any task which can and must be solved dismounted it is far better suited than cavalry, not being encumbered with led horses. Another point, the infantry can utilize for operation the time necessary to the cavalry to care for its mounts, and what the dismounted arm loses in celerity or mobility it can make good by continuity. Matters of camping, quartering and subsistence are easier of arrangement for the infantry than for the cavalry and its readiness for battle is materially greater.

Artillery may be considered as a purely defensive arm, when in good position its effect is good at long range. Its employment depends on a series of presuppositions and conditions not always available. In covered terrain, at night and in foggy weather it is condemned to inactivity and needs protection then just as it does on the march and while at rest. The length of its march column causes serious difficulties and deprives other arms of part of their fighting force. Attaching artillery to advance guards can be done only under certain limitations and is possible only where conditions of the terrain allow its employment. Should the enemy offer large and paying targets, its effect may be annihilating.

For the purpose of sending back information secured we have, in addition to mounted messengers, special information troops, the lines and stations of which require protection by the other arms. Infantry equipped with cycles had best be used for that protection.

In future, aerial craft will have to be considered for purposes of reconnaissance. They are able to quickly cover large distances, and will prove of the utmost value in showing the proper route to be taken by the cavalry patrols carrying on the far reconnaissance; however, they can be seen from a very great distance and are thus more in danger from fire than the slower working patrols.

3. The Utilization of the Means.—Where the task of the advance guard is reconnaissance only and where the terrain

offers no difficulties, cavalry re-inforced by artillery and machine guns will be fully sufficient to attain all objects in view.

It is different where a covered and cut up terrain in immediate vicinity of the enemy demands a systematical advance from sector to sector. In this case reconnoitering cavalry requires the active support of infantry in rear, while accompanying artillery may become a drag. In especially difficult terrain, forests and mountains, where even cavalry can not be used, infantry must nolens volens take the place of cavalry, or it may become necessary to attach infantry to the reconnaissance organs, a measure which would be entirely wrong in an open terrain.

Similar effects are produced by the diversity of the objects to be attained. If screening, security and battle are of more importance than reconnaissance, infantry may have to be attached, which performs everything the cavalry, hastening on ahead, cannot perform, such as guarding the routes on which messages are sent, screening, protecting the rear of the cavalry, receiving the cavalry, or even supporting it in the fire fight.

This combined action of the two arms must, however, not be sought in a mechanical mixture of the arms and in keeping them locally bound together, far rather should each arm find its proper employment in the proper place, assigned it in consonance with the peculiarity of the arm, where it can be most effective.

As in 1870 the cavalry was not armed with carbines and untrained in the utilization of the arms captured from the enemy, it is not at all to be wondered at that it often called on the protection of infantry. But even at that time General v. Schmidt broke a lance for the necessity of cavalry independence and, after the cavalry was finally armed with the carbine, his views: "Cavalry has to and must protect itself and needs no infantry for this," were adopted generally. Thus, wherever infantry is attached to army advance guards it should not be considered as a particular guard or protection for the cavalry, but only as a body to relieve the cavalry of certain tasks in which the horse is out of place or not necessary. Mobility, celerity and surprise are of no use in guarding trains, on out-

posts, holding a certain locality, or in security service. Employing the cavalry for defense soon kills the cavalry spirit and for that reason alone cavalry should be sent far to the front and should not be bound down to tasks which had better be performed by infantry.

It is no reason to believe that cavalry will stick close to infantry just because some writers hold that view. A body of infantry, which does not need the protection of cavalry and which is intended to relieve the cavalry of onerous duties, is merely a drag on the movements of cavalry. Just as the cavalry must cut loose from the army, so also must it cut loose from the infantry attached to it or forming a part of the army advance guard. In cases where cavalry sticks to the infantry the fault rests not on the arm but on the leader who does not understand how to employ the different arms properly in consonance with the peculiarity of their effect. The campaign of 1866 shows plainly that it is not always easy to perceive the true peculiarity of each arm, for in that campaign the loaded down infantryman performed the patrol service, while the cavalry of the army generally brought up the rear.

As a general rule, cavalry will advance reconnoiteringly with its auxiliary arms, horse artillery and machine gun detachments; the attached infantry and its auxiliary arms, artillery and weak cavalry, will follow as a special detachment, under certain conditions at great intervals, and possibly also by rail; it performs screening duty, holds position and places, brings up and guards the baggage of the cavalry. Whether or not the infantry can camp or bivouac with the cavalry or in its vicinity, depends on conditions, but we should always strive to have it so.

We do not mean to say that the above will be the invariable rule; situations may arise where infantry will have to open a road for the cavalry as was the case in the campaign of 1805, where Murat's cavalry divisions crossed the Rhine under protection of one infantry division and thereafter went ahead of the latter into the Black Forest. However, it may be assumed that a competent cavalry leader will only in case of absolute necessity give to the infantry the honor of being first.

Objection is often raised against attaching infantry to

army advance guards, for the reason that it is unable to keep up with the cavalry. This may be true in exceptional cases, but is not the rule. The marching rate of the main body designates, during operations, the rate for the cavalry after it has gained a certain distance in front; for the rest, achievements of cavalry in a six days' maneuver cannot be taken as a guide for performance in war, unless we intend to entirely ruin our cavalry without a battle. After its march to Kimberley, French's cavalry division was not in a state of battle efficiency on its arrival at Paardeberg and it took a long time to recuperate. Such marches are infrequent, and as the question in advance guards is as a rule only one of small bodies of infantry, the utilization of railroads, or carrying the knapsacks on wagons, or carrying small detachments on wagons, is very frequently possible. A competent infantry commander undoubtedly can when necessary cover longer distances with his command, the more so as such long or forced marches will be exceptional and not the rule. Where cavalry is accompanied by baggage, which will be the case as a general rule, infantry will have no difficulty in keeping up.

Like composition, strength of the troops designated for advance guard duty is dependent on circumstances and different in different cases.

In level country where cavalry can easily deploy, move on broad fronts, and can easily be utilized for combined action in battle, the organization of divisions into cavalry corps is to be recommended, to be better enabled to drive the hostile cavalry from the field and to pierce the hostile screen. Of course, all other requirements necessary for the utilization of larger masses of cavalry must obtain. Where this is not the case, for instance, where matters of supply and subsistence are not regulated, we can no more employ larger masses of cavalry justly than we can where the difficulties of the terrain prevent it. In war only that counts which can make its effect felt; a numerical superiority which cannot be employed merely becomes a drag and may endanger success. In such cases we must content ourselves with cavalry divisions or even smaller units, several of whom then find employment alongside of each other.

Strength of infantry to be attached to bodies of cavalry will depend on the strength of the cavalry, the peculiarity of the terrain and the tasks set. Under average conditions one battalion will suffice for a division. This strength will suffice to relieve the cavalry from the above mentioned onerous details. but will not be sufficient when the task of the army advance guard is more than reconnaissance, when it requires more security or more battle power, which latter ought however to be only temporary. An army advance guard acts similar to a detached corps "less by battle actually engaged in than by the possibility of those which it might have engaged in; it should not stop, but regulate, the hostile movements" (Clausewitz). For carrying on delaying action (in suitable terrain) strong artillery will be required, which in its turn requires strong infantry protection, but in this case the infantry is but an auxiliary arm for the artillery, as it was originally for the cavalry, and its strength ought to be regulated by that factor. France intends to throw out the army advance guard as a sort of bait for the enemy in the hope to thus interfere with his movements, to draw his columns to a converging point, to engage them in undesirable battles and to thereby advantageously prepare the battle for its main force. The question here is of demonstrative aims, which cannot be achieved without offensive action and for which strong infantry is required. France has therefore decided to assign a full army corps to the army advance guard, to let this corps follow behind the cavalry on a broad front one day's march ahead of the army. It is evident that from this "advanced corps" France expects a task which goes far beyond what Clausewitz considers possible. We own up that such an army advance guard, provided it is efficiently led and understands its business, provided the terrain is favorable and the enemy not efficiently led, can successfully achieve its task; but will all these presumptions actually happen in most cases and will each situation be suitable to this scheme? We doubt it and believe that this is a misconception of the effect of achievements of advanced corps. They are expected to perform something far beyond their powers or abilities, which they can possibly perform in very exceptional cases only. Each and every misconception of natural conditions must, in war, lead to defeat.

After what has been said above, we believe that there should be no hard and fast rule governing the composition and strength of army advance guards, but that each separate situation should govern *such* composition, *such* strength, and *such* employment or tasks set, as will best lead to the desired result. We further believe that this maxim ought to be applied in peace maneuvers so that the leaders of army advance guards will learn to employ the different arms according to the peculiarity of their arm, for *not* local consolidation of the different arms, *not* mixing the different arms, but only correct combined utilization and action leads to the desired result. To bring this about is an art. The nature of things creates the formation.

# CAVALRY MACHINE GUNS ON PACK ANIMALS OR CARRIAGES.\*

By CAPTAIN H. VICTORIN, THIRD AUSTRIAN DRAGOONS,

(Translated from the Kavalleristische Monatshefte by the General Staff.)

THE question whether machine guns with cavalry should be carried on pack horses or on wheels is still being discussed in Germany, though it was decided in Austria, as long ago as 1907, in favor of pack transport. The writer of the present article has commanded machine gun sections with both descriptions of transport and has more than once contributed articles on the subject to this periodical.

The author of a book published in Germany entitled "The Latest Machine Guns" appears to be in favor of wheeled transport. So was the present writer, once. In 1907 he contributed an article to the *Kavalleristische Monatshefte*, pointing out the advantages of that description of machine gun mounting, viz., its great mobility (with a team of four horses), its instantaneous readiness for action, and capability for carrying over 15,000 rounds of ammunition with the gun. But his views

<sup>\*</sup>From the British Cavalry Journal for April, 1911.

were entirely changed during the autumn of that same year.\* The excellent results obtained from the Schaller pattern of saddle removed the objection, as to probable sore backs, raised against pack transport; while close study of the Russo-Japanese war proved that a machine gun must still be considered as a small arm, the principal work of which is at short ranges, within which it is difficult to handle any large carriage mounting with a team of horses.

It is worth while reproducing here a passage which occurs in an article by Colonel Köppel (cited by Captain Fleck), where he replies to the favorite argument of the partisans of carriage mounting, to the effect that if horse artillery possesses adequate mobility to act with cavalry, the same applies to machine guns mounted on wheels.

Colonel Köppel remarks:

"Field guns possess a much wider range of action. They can come into action at much longer ranges, and have a much wider choice of position, besides being able to remain in the same place for a considerable time.

"Machine guns, on the other hand, must push on to closer ranges if a good result is to be attained, while the time within which their action can be utilized is strictly limited.

"They must move by the shortest lines, get into position quickly, deliver rapid fire for a few minutes only and then dis appear again.

"Such requirements as these can only be met by a machine gun carried by mounted men."

The writer of the present article, from his own experience of practical work with both descriptions of mounting, thoroughly endorses Colonel Köppel's views. The chief point is getting into position unseen, and thus being able to open fire unexpectedly at ranges between 1000—1500 paces.

It is a very different thing for an officer commanding machine guns to know that his men can follow him wherever he himself can go, compared with the feeling that he is followed by wheeled vehicles. The writer has repeatedly jumped with

<sup>\*</sup>Vide the writer's article in the Kavalleristische Monatshefte, April, 1908.

his section over fences  $5\frac{1}{4}$  feet high, and then opened fire within twenty-six seconds.\*

In a tight place, moreover, there is no necessity for bringing up all the horses of a machine gun section. The four gun horses, leaders, and four men for each gun, etc., would suffice; *i. e.*, thirty horses in all, capable of being sub-divided into two parties of fifteen, which might well advance unnoticed carrying the respectable number of 2,000 rounds with them.

A mounted machine gun section is almost independent of the question of ground. It can get over any obstacle which an individual rider can jump, negotiate steep gradients, pass through woods, use any footpath where a single horse can pass, and so on. As Colonel Köppel pointed out in an article on the Japansese machine guns, published in the *Militar-Wochenblatt* (No. 5 of 1908), there are many paths among the smaller German mountains which would be impassable for any form of vehicle, though perfectly practicable for mounted men and pack transport.

Captain Fleck refers to the Austrian regulations as to equalizing and balancing loads (empty and full), as showing the "seamy side" of pack transport. But in actual practice that is far from being so complicated as it may seem in print. It is done in a couple of seconds, without any trouble whatever. Moreover, if time presses, the Schaller pattern of saddle is so well arranged on the horses that three or four pounds more or less, on one side or the other, cannot possibly shift it all at once.

With regard to Captain Fleck's opinion that a machine gun carried on a pack horse must take longer coming into action than one mounted on wheels, I know from my own personal experience that my own (wheel-transport) machine gun section in 1907 was able to open aimed fire from the carriage within twenty-six seconds of halting. But fire can also be opened with a pack transport machine gun within the same limit of time and the target presented to the enemy is infinitely smaller than the upstanding carriage.

The four guns of my (pack transport) machine gun section were always ready to fire within twenty-six seconds of

<sup>\*</sup>Vide previous articles in the Kavalleristische Monatshefte, November, 1908, December, 1909.

halting, even after the fastest gallop, and delivered well-aimed fire, as shown by the results of field firing practices.

In order to encourage quick handling of the guns, prizes were offered for competition as follows: The machine gun section would be drawn up in line. A gun leader was then ordered to gallop his gun to a given point, and there open fire upon a given target. The time elapsing between the word "halt" and the first shot was noted by an officer, while another officer checked the sighting and aiming. Credit was given for smart and quick removal of the horses to the nearest cover. Then the next gun followed, and so on. The gun team which took the least time and lost no marks for mistakes received a prize.

Thus a "record" was made on each occasion, which had to be beaten in subsequent competitions.

In this way the time was reduced to  $23\frac{1}{2}$  seconds between the order "Halt! unload" (followed, for example, by the words: "Cavalry 1200! Aim at the high poplar tree!" etc.) and opening fire. There was no difficulty in obtaining such results and the operation of loading up again was just as quick.

On getting into position the men leading led horses remained mounted, each holding two horses (ridden by men of the gun detachment) on their left side, in addition to the pack horses on their right.

The man leading the pack horses carrying the gun took the horses of Nos. 1 and 2, while the leader of the first ammunition pack horse held those of Nos. 3 and 4. No. 5, if not required, remained on horseback, but if necessary gave his horse over to the leader of the second ammunition pack horse. In special cases, when the gun horses alone were brought up, No. 5 (mounted) held the horses of Nos. 3 and 4.

As soon as the loads were removed the horses were galloped off to take cover.

Similarly, if the guns were not withdrawn by hand to where the horses stood, the latter would be brought up at a gallop to receive their loads.

With regard to what Captain Fleck says as to the danger of sore backs, etc., I can only say that during the Grand Maneuvers in West Hungary in 1908 my machine gun section rode over 500 miles within five weeks without one single sore back.

We also took part in a "cavalry raid" (described in the Kavalleristische Monatshefte, July-August, 1909), in the course of which we rode over seventy-three miles in twenty-eight hours without any casualty among the men or horses. A few days later, on May 14, the section was present in full strength at the parade held to welcome their majesties the German Emperor and Empress in Vienna.

The result of my own long experience is that, as a rule, the pack horses are fresher after a day's work than those ridden.

As to Captain Fleck's remark to the effect that constant handling of the pack loads must "worry" the men, who must, at the same time, be very good horsemen, while the leaders of horses require special training, I can only say my men showed no sign of "worry," but were always most keen on their work. Undoubtedly, the men must be good riders; but if they are not, two or three lessons are enough to teach them how to lead led horses.

#### NOTES ON LEE.\*

By Second-Lieutenant R. H. BEADON, A. S. C.

It IS a thousand pities that the author of "Stonewall Jackson" did not survive to write the life of Lee. Colonel Henderson had, indeed, contemplated the work, and had even collected a mass of material for it, but death intervened, and the world was left the poorer. For amid the galaxy of great leaders produced by the War of Secession surely Lee must stand pre-eminent. It would be out of place to compare him as a soldier with his great lieutenant, for, as Jefferson Davis said, "they supplemented each other and together were invincible." So let the object of this short paper be solely to attempt to awaken more general interest in a career which will so well repay study.

<sup>\*</sup>From the United Service Magazine, March, 1911.

Lee had lived in a military atmosphere most of his life. Educated at West Point, of which institution he was afterwards superintendent, he had a notable career in the United States Army, especially distinguishing himself during the war with Mexico in 1847. The secession movement seemed his opportunity of further advancement. To the ambitious and rising soldier the outbreak of war is so often the long-awaited chance. And fortune seemed to smile on Lee, when, summoned to Washington by General Winfield Scott, he was virtually offered the command of the Union armies in stamping out the "rebellion."

It is difficult for Englishmen to understand the feeling which made men put their State before their Country, but it is certain that the strongest sense of patriotism and of outraged rights permeated the mass of those who fought the Union so long and bitterly. The history of the war speaks for itself. No nation or people or army ever fought well for a cause in which they did not believe. And who can deny that the struggle of the Confederacy was one of the most gallant fights ever made by a weak against a strong State? For the Confederacy was essentially weak. The skill of her leaders alone enabled her to prolong the war four years. Lee himself never, even in the hour of victory and triumph, became sanguine enough to suppose that the Southerners would be eventually successful without foreign intervention. In his own words, near the end of the war, "I have never believed we could against the gigantic combination for our subjugation make good in the long run our independence unless foreign powers should directly or indirectly assist us. \* \* We had, I am satisfied, sacred principles to maintain and sacred rights to defend for which we were in duty bound to do our best even if we perished in the attempt."

It was in this spirit that the most promising officer in the United States Army resigned his commission and offered his services to Virginia—his native state. No time was lost in appointing him to command her armies. Merit in his case did not go unrecognized. For Lee, before ever he had led a great army in the field, had displayed many of those qualities which make for success in war. Morally and physically he was absolutely fearless. He was exceedingly tactful. There was little

chance of friction between him and his political leaders. Indeed, his anxiety to steer clear of anything that could lead to internal dissension might have been almost construed into weakness. This stands out all through his career. He had most excellent reasons for dealing with Longstreet very stringently after that general's conduct at Gettysburg. As one writer remarks, "Jackson would probably have had him relieved of his command and court-martialed." Not so Lee.

After the campaign closed he wrote to the President offering him his resignation, partially on the grounds of ill-health, but mainly because he thought the South could produce better men than himself. To his lasting credit, Mr. Davis refused it.

Again, from a purely strategical point of view, the employment of the Army of Northern Virginia during the last year of the war was indefensible, and as a strategist Lee opposed the policy of tying down the field army to the defense of the capital. But, as has so often happened, political reasons overcame strategical ones, and the soldier again made his will subordinate to that of the statesman. On such a vital question, however, Lee did offer some opposition, but always in the shape of advice and suggestions.

But reference to this again later.

In 1861 the most prophetic vision could scarcely have seen in Lee the genius for strategy and grand tactics which it afterwards appeared he possessed in so great a measure. That he had energy and foresight his previous career had shown. That he was loved and trusted by his subordinates was patent to all who knew him. But that he had that subtlety and that extraordinary power of insight into his opponents' plans, few could have guessed.

Jefferson Davis, a West Pointer himself, and a most capable judge of men, appointed Lee his military secretary at the outset, and while in this capacity a great deal of organization and administrative work seems to have fallen to him. In this sphere he appears to have been no less successful than he was afterwards as a commander in the field. The raw material which was to be turned into soldiers required an immense amount of patient labor, but the welding of the rough-and-ready regiments

into an army must have been a much more formidable task. Bull Run proved that the work was not in vain.

In West Virginia, however, it was evident that the hostility of the inhabitants to the Confederate cause would necessitate a vigorous campaign if the territory was to be held, and Lee was accordingly sent there. But the series of operations was a failure, and the Southern troops were withdrawn. Lee came in for some very strong press criticisms, but expert opinion backed him against condemnation, and he still held the confidence of the President, who resisted all newspaper clamor. His faith in his subordinate never wavered, even in moments of disaster and ill fortune. Referring to Lee in this campaign he afterwards said, "He came back carrying the heavy weight of defeat, and unappreciated by the people whom he served, for they could not know, as I knew, that had his orders and plans been carried out the result would have been victory rather than defeat. \* \* Yet, through all this, with a magnanimity rarely equaled, he stood in silence without defending himself or allowing others to defend him, for he was unwilling to offend any one who was wearing a sword and striking a blow for the Confederacy."

One of Napoleon's maxims lays down that the first qualification for a general is a cool head. "He must not," it continues, "allow himself to be elated by good news, or depressed by bad." And the French Emperor himself possessed most admirable presence of mind and fortitude in depressing circumstances. But scarcely more so than the American. For Lee showed at his very best as a soldier and a man when the outlook was blackest. The Federal masses before his small army at the Antietam did not quail his spirit to give them battle. Pickett's division, reeling back in rout from the slopes of Gettysburg. only brought forth his courage and energy to repair the fortunes of the day. Even in the last dark hours, when not only the army but the whole nation looked to him to save them, his generalship was higher than ever. And it was more by bad luck than by the odds against him that he did not save his army from Appomattox.

In the spring of 1862 the horizon appeared none too bright for the Southern cause. General McClellan, who had taken

command of the army of the Potomac, had put into operation a scheme by which the vast numerical superiority of the Federals and their command of the sea could be adequately utilized. The famous "Anaconda" scheme would in all probability have succeeded had McClellan himself possessed a little more audacity. But though his strategical conceptions were often good, the Federal general was far too cautious a tactician, and so he always failed just when he had put himself in a position to make defeat absolutely disastrous for his opponent. There is no doubt that Lee knew this characteristic of McClellan, and treated him accordingly. As Henderson so aptly puts it, "He read him like an open book." This remark gives the keynote of Lee's methods throughout the whole Peninsula campaign-a campaign in which an army superior in numbers was driven back to its ships after having reached the very gates of Richmond.

Napoleon is said to have carried biographies of all the Russian generals opposed to him in 1813. Indeed, he is credited with persistently studying the characters of the leaders opposed to him.

Lee was in the fortunate position of personally knowing many of the Federal generals, and his methods of dealing with them were invariably those that disconcerted them most. That they knew him was rather to his advantage. His personal qualities had been widely esteemed in the United States Army. They feared to make moves against him which would often have been successful if they had had but the courage of their convictions. Meade would have advanced promptly after Gettysburg but for the fear that Lee had, so to speak, "another card up his sleeve."

The campaign against McClellan was Lee's first great command, and his conduct of it won him the complete confidence of the South. He had learnt much himself. His army had learnt much also. The brilliant maneuvers that so utterly confounded his adversaries later were only possible with an army which had found "its feet." And though his troops had still much to learn, yet the bloody fields of the Yorktown Peninsula had paved the way to some of the most notable tactical triumphs of the century.

The campaign that followed was short, sharp and decisive. "In the space of three weeks, Lee carried the war from the James to the Potomac." The operations were probably the most instructive of the whole civil war, as they are assuredly the most brilliant. A daring stroke, skillfully executed, compassed the utter discomfiture of the Northerners. A study of the brief campaign by itself can be strongly recommended. Few can teach more of war. The second Manassas has been rightly compared to Salamanca.

Lee's first invasion of the North followed this victory. It was not a success. The Confederate army appears to have suffered from an over-confidence from which not even their leader was exempt. It found itself in imminent danger of destruction on the Antietam, but Lee extricated himself from a most perilous position by an engagement most creditable to himself and his soldiers. Tactically the battle was a masterpiece. The skill with which he brought every available soldier on the field into action, so that he was always strongest where the attack was heaviest, makes this encounter a model of its kind.

The net result of the Antietam was to put the Southerners once more on the defensive, and the next time the armies met, Lee fought a purely defensive action—Fredericksburg. The several excellent accounts of this battle, which has excited a great deal of controversy, preclude any remarks being offered here. It was a barren victory for the Confederates.

In May, 1863, Lee was once more the aggressor. Chancel-lorsville has been described as the "tactical masterpiece of the nineteenth century as Leuthen was of the eighteenth." Purchased at the price of Jackson's death, however, it was a dearly won conquest. The end of the great combination of the two great Southern generals had come, and from henceforth Lee was perforce to make shift with by far less capable subordinates.

The Gettysburg campaign was admirably planned and came very near to being a dazzling success, and though regrets are vain it is difficult to believe how it could have failed had Lee's great lieutenant been present. It is worth while noting with what judgment the Confederate line of advance was selected in the second invasion of the North. Lee made every use of the

character of the ground, using the covered way of the Shenan-doah Valley as an approach. By holding the eastern gap in the Blue Ridge he could insure freedom from molestation of the right flank of his army while en route.

It is not always realized what a bold move was this northward march; consider the numbers of the opposing armies, and it will seem even rash. The Southern troops, however, were at this time at the very height of their prosperity. The *morale* was never higher; and Lee no doubt felt that the time for a bold stroke had come. Who can say he was wrong?

The climax of the whole struggle of secession—the three days' action at Gettysburg—was one of the decisive battles of the world. From the Confederate point of view it was essentially one of lost opportunities. Southern independence was never nearer than on that fateful morning of the 3rd of July. Lee realized to the full the issues that hung on the battle. "It is a pity we must go back to Virginia."

The day following the battle his army fell sullenly back. The war was never again carried into Northern territory.

Grant now appeared on the Eastern theater of war, and the last phase of the struggle was entered upon. The contest between Lee and the victorious Federal general from the West has been compared to Napoleon's mighty campaign of 1814, and it indeed bears many resemblances to that masterpiece of defensive war. The aggressive defensive attitude, if it may be thus termed, of the Southern army must excite the admiration of any student of strategy and grand tactics. Lee never forgot that the counter-stroke is the very soul of the defense, and was constantly on the lookout for opportunities for striking a blow.

That his tactics merely postponed the inevitable end cannot be held as a fair criticism, for, as is remarked elsewhere, he was tied down to a policy which he considered disastrous. He dia all that a human being could do to make it a success.

Colonel Anderson, C. S. A., speaking after the war on the course of events from the commencement of the siege of Petersburg to the final surrender, has admirably summed up the situation in a few words which are repeated here:

"For nine months," he said, "the Confederate commander displayed every art by which genius and courage can make good

the lack of numbers and resources. But the increasing misfortunes of the Confederate arms on other theaters of the war gradually cut off the supply of men and means. The army of Northern Virginia ceased to be recruited. It ceased to be adequately fed. It lived for months on less than one-third rations. It was demoralized not by the enemy in its front, but by the enemy in the Georgias and the Carolinas. It dwindled to 35,000 men, holding a front of thirty-five miles, but over the enemy it still cast the shadow of its great name. Again and again by a bold offensive it arrested the Federal movement to fasten on its communications. At last an irresistible concentration of force broke through its long, thin line of battle. Petersburg had to be abandoned. Richmond was evacuated. Trains bearing supplies were intercepted, and a starving army, harassed for seven days by incessant attacks on rear and flank, found itself hemmed in by overwhelming masses."

The last italicized sentence above is worth thinking about. Realize what a bold offensive by a starving army of 35,000 men against a well-fed and well-equipped host of between 120,000 and 140,000 veterans means! One may then understand why great leaders are few and far between.

Much that will live in world history was crowded into the Confederacy's four years as a nation, Colossal blunders were made, it is true, by the Southern Government, but of what war can it be said that great mistakes are conspicuous by their absence? Lee's share in the errors committed by his side is worth examining. For who is faultless? He was not, fortunately for the Federals, present at the first battle of Bull Run. If he had been, it is improbable that the Union Army would have been let off so lightly. That McClellan saved his host in the Peninsula and Pope his army after Manassas is not to be wondered at, considering their numerical superiority, for Franklin and Sumner became involved in the latter general precipitate retreat. The invasion of Maryland after this battle has been criticised as rash, as has also the audacious offensive after Chancellorsville. One writer has gone so far as to state that Lee committed a great error of judgment in ever attempting the invasion of the North. But the Confederates came within "a stone's throw of independence" at Gettysburg.

That Lee was wrong in the dispersal of his army in September, 1862, can scarcely be denied. He placed too high a value on the capture or Harper's Ferry. But he made ample amends at Sharpsburg, which from a purely tactical point of view was perhaps the very best of his battles. A more cautious leader would have avoided a trial of strength, and a retirement would have had a very detrimental moral effect.

The Gettysburg campaign, unsuccessful as it was, cannot be considered unjustified. Lee conducted it with admirable skill. By all the rules of war he should have obtained an overwhelming victory, for he concentrated on a superior enemy when the latter was disunited. He cannot, however, be acquitted of permitting his cavalry to leave the army for a non-sufficient reason. Indeed, all through his campaigns a partiality for raids seems to have been considerably overdone. The raison d'etre of a large body of horsemen is to protect the army by overthrowing the hostile cavalry. A certain amount of information may be obtained, and a certain amount of temporary discomfort may be inflicted on a foe by a cavalry raid on his communications, but absolute security should be insured to the army first. And for it to attempt offensive movements on an extended scale is merely groping in the dark.

But this was Lee's only serious error. His failure to break the Federal center on the 3rd of July by no means proved him to be wrong in attempting the stroke, which, if it had succeeded, as it very nearly did, despite the blunders of subordinates, would have spelt absolute disaster to Meade.

Lee's leadership during the last year of the war has already been dealt with. He was tied down to a policy of which he disapproved, and under the circumstances he did all that was possible. That he ventured as far as he did to make the Government fall in with his views proves how serious he considered the strategic aspects of their decision. For Lee was surely the most unassertive man who ever led an army, and his very humility was probably his chief fault as a general. If he had been less modest his cause would have been the gainer. Jackson called a council of war once, and then regretted it afterwards. Lee, on the other hand, invariably consulted his generals.

The charge of making dangerous detachments and of dividing up his army in the most audacious manner in the face of the enemy has been preferred against Lee as a violation of all principles of war. But Napoleon broke rules when he thought fit. For "genius is above rules."

This knowledge of when rules can be set at defiance is indeed one of the distinguishing marks of a great leader. Lee repeatedly divided his army into two for the execution of some movement while Jackson served under him, and that he could time the rejunction of the parts Manassas and Chancellorsville bear witness.

It has been urged against Jackson, says Henderson, that he never faced generals of great capability, so that he was never fairly tested. The same has to a certain extent been advanced against Lee. It is true that Burnside was unfitted to command an army, but McClellan, with all his faults, had considerable military capacity. Pope and Hooker were not soldiers of genius, but many worse generals have met with success. Grant, however, was of far different caliber. He had all the Anglo-Saxon stubbornness and was both courageous and energetic. His strategy may have been straightforward, but "it is daring and simple schemes that win success in war." The fact that many of Lee's opponents cut a very poor figure against him does not necessarily prove them of no worth as soldiers. Nay, rather, their very inability to cope with him may furnish further evidence of his military genius.

No sketch of Lee as a general, however brief, could omit mention of the personal characteristics which made him so absolutely trusted by those who served under him.

Referring to Wellington once, one of his soldiers wrote: "The sight of his long nose among us on a battle morning was worth ten thousand men any day of the week." And the "Iron Duke" had certainly the power of inspiring his soldiers with boundless confidence. He was not the kind of man who awoke personal devotion, but trust in his ability was universal in his army. What a powerful asset this is! More than is, perhaps, always realized. It is recorded that the Federal infantry went bravely but hopelessly forward at Fredricksburg. They did not

believe in in Burnside, and were beaten long before the awful slaughter at Mary's hill. Surely no general had ever to call upon his men for greater sacrifices than had Lee during the last six months of the war. And how grand was the response! The sufferings of the Army of Northern Virginia are almost without parallel in modern war, and yet they were all borne without complaint.

Battine, in his "Crisis of the Confederacy," draws a graphic picture of Lee rallying his broken troops at Gettysburg, and this description admirably illustrates his magnetic influence:

"When Lee beheld the collapse of the attack, and his ten brigades reeling back in disorder, he understood how great was the disaster, and set himself to remedy the confusion and meet the counterstroke that might be expected to follow. With all the personal charm which had won, and was ever destined to keep, their affection, he rode among his defeated soldiers encouraging them with kind words, and taking all the blame to himself.

"When the Southern soldiers heard his voice, and saw his kindly, confident face and noble bearing, they soon regained their courage, and resumed military order."

Like Napoleon in his early days Lee was wont to expose himself in battle most recklessly when he deemed that the situation demanded it, and often his staff officers had the utmost difficulty in preventing him leading his infantry in person to the charge. The life of the Commander-in-Chief is far too precious to be lightly risked, but there are occasions, rarely, when the personal bravery of the general can do more than anything else to turn the fortunes of the day. The old adage "desperate diseases demand desperate remedies" still holds good.

What has been touched on above might be enlarged upon almost *ad infinitum*, but space will permit of only one more point. That "eye for ground," without which, says Henderson, "no man can hope to become a good or even a useful general."

The most superficial study of Lee's campaigns will demonstrate in how great a measure he possessed this. Time after

time his choice of position is the most judicious one possible. When pitted against Grant, all his skill was brought into play, and it was indeed needed. That his small army could have withstood the victor of Shiloh, Donelson and Vicksburg for so long will suffice to show how admirably it was always posted to meet the Federal offensive. Lee had not been an engineer officer for nothing.

A standard work on this great American soldier is badly needed, and would supply a long-felt want, for such a book would be full of instruction to all who value manliness and probity. The verdict of history must surely accord Lee a high place among men. As a Christian soldier he stands with Havelock and Jackson and Gordon; and as a leader in war, he may be fitly placed with Napoleon, Wellington and Von Moltke.

His unswerving loyalty and courage should be a lesson to all, and the history of his life and campaigns should make his achievements a pride to all those soldiers "in whose veins the same blood runs."

### BOY SCOUTS.\*

By LIEUTENANT GENERAL SIR ROBERT BADEN-POWELL, K. C. B., K. C. V. O.

#### SYNOPSIS OF LECTURE.

"To be a soldier a man must be a MAN, not a sheep."

THE drilled machine of Fredrick the Great is out of date; the fighting unit must nowadays be composed of intelligent and handy individuals.

Marksmanship and drill are useful steps towards making a defense force efficient against a civilized enemy, but are useless if the *moral*, *i. e.*, the spirit, character and discipline, is absent.

The British character is independent and does not take readily to repressive discipline though it is amenable to a sense of duty when that is impressed in good time.

Discipline through a sense of duty has to be inculcated in the boy; it is difficult to implant in a man after he has grown up.

<sup>\*</sup>From the Journal of the Royal Military Service Institution of May, 1911.

Yet it is the task of the regimental officer today to make up in his recruits the want of a previous school education in manliness and discipline.

Public schools inculcate some such discipline, but it is only among a restricted class. Lower schools do nothing.

Cadet Corps are valuable institutions for instructing in marksmanship and military training, but cannot naturally effect much in character training,

The principle of the public school discipline of "good form" and "playing the game" needs development on right lines, and extension to other ranks of life.

An attempt is made in this direction in the Boy Scouts, where, by means which appeal to the boy, he is encouraged to practice discipline, pluck and sacrifice of self daily, together with handiness in campaigning and scouting.

Thus, although he does little or no military drill, he is none the less the best material for a soldier, having had as a foundation the all-round training as a good citizen and a manly fellow.

The Boy Scouts can and do help the Cadet Corps and Defense Forces.

A large number of parents conscientiously object to their sons being instructed permanently in ideas of fighting and bloodshed, and therefore are averse to military training for them. They have no objection to their becoming Scouts. Scouting, therefore, fills a gap between Cadet Corps and other drilled organizations for boys, by getting hold of those who would otherwise receive no training in character and patriotism.

Although it is non military, scouting can be utilized by Cadet Corps as giving the essential training for soldiers (and for sailors) in a form which really interests or attracts the boy. There is no lack of recruits for such training.

It is already so utilized in many Cadet Corps, especially in oversea dominions and in Rusia, etc.

The Boy Scouts and their training are in no sense rivals to Cadets or harmful to Defense Forces, but exactly the opposite

I propose in this paper briefly to discuss the need of a training of our youth in "character" as a basis for training for National Defense, or, indeed, for any service or career.

I would indicate where Cadet Corps may fail and how the Boy Scouts' organization can and does help them.

Also I would sketch in outline the aims and methods of the Boy Scouts.

# COMMON SENSE TRAINING.

Lord Haldane has just spoken of the gap which exists between National Training and National Service. It is a gap which must be bridged over before we can be an efficient nation. National Service is of no use without National Training as a foundation. Our present educational system does little to supply this. The Boy Scouts scheme is, as I will endeavor to show, one attempt among others to fill that gap by laying in the boy a foundation of character upon which he may build a career in any direction.

The general idea of the Boy Scouts movement and training was not one, as seems to be inferred, that came as a sudden inspiration; it was merely a mixture of experiences gradually gathered in training recruits in the army. In the army our education has, during the last few years, gone through various transitions. The method of Frederick the Great, of having a drilled machine, worked very well in his day, and he won great battles, but it would not have been successful in the present day, when we want men rather than machines to do our fighting. The text which heads the syllabus of my lecture -"If you want a man to be a soldier he must be a MAN and not a sheep"-is one the truth of which, I think, none of us can nowadays deny. When I began my service we were in the transition stage, when we were still being drilled, and when we were not allowed to develop in peace time what are termed the three C's of the soldier, vis., Courage, Common sense and Cunning. I think I have suffered as much as most people in being hauled over the coals for "playing the fool instead of carrying out the maneuvers." I remember especially one occasion in Ireland, many years ago, when I happened to be a very young captain in charge of a squadron, that I saw an enemy's battery in action. We crept along by a hollow road till we got right in front of it, under a crest of the hill, unseen by either the battery or its escort-which was doing its proper duty as was laid down in those times, i. e., looking to its "front." We came up to the battery at about ten yards distance, and walked into it and captured it. Well, the officer in command of the escort said that being a dry, hot day, he naturally expected we should kick up some dust and merely sat. there looking around for any dust in the distance. As we did not happen to make much dust he had not noticed us. Next day it happened, going across some hills, we found this same battery in action again, with the same escort looking out for dust. We thought it a pity not to oblige. A few soldiers,

under an astute sergeant, armed with lassoes on their saddles, cut down a few branches of trees and rode along at a trot in a shallow road some little distance to the front of the escort. They towed these branches along behind them, thereby kicking up an enormous dust. Away went the cavalry after them, and we merely then walked into the battery again, this time from the rear. We were just congratulating ourselves on having done a clever thing-for us-when an aide-de-camp came galloping down and said that the commander-in-chief wanted the officer in charge of the squadron. Well, the feeling came to me as I suppose it has to many of you-as if somebody had poured a quantity of cold oil down inside you. I rode off with the galloper thinking of what my next profession in life would be after I had left the army. When I got to the commanderin-chief he said, "Did you do this thing?" I said, "Well, sir, my squadron did." I dared not look at him as I said that, but when I did look I found he was laughing. He patted me on the back and said, "That is the sort of thing I want to see, use of your common sense." I felt myself blushing down to my toes. That general was Lord Wolseley. A new era had dawned. There was no longer any regard paid to the red tape fetish; we realized that we were not to slavishly follow drill books, but that we had to use our common sense as occasion demanded. That system has continued to develop up to the present time; we train our soldiers, each as an individual, to use his common sense, and to be a man, instead of being merely a machine. Frederick the Great won battles by his drilled machine, but Bonaparte won his with hordes of conscripts merely by the moral of his magnetic leadership. In the same way you saw in later days, in the Russo-Japanese war, one side a drilled machine and the other composed of individual men of spirit. You saw the Boers-what a formidable foe they made. Although never drilled, they had the spirit, the common sense and the cunning of the campaigner-all those points which go to make a soldier; it merely wanted the extra luxury of a drill to make such a man into the finished article. It is the human, manly side which needs developing. No one realizes this better than the Emperor of Germany.

As a basis for training your soldier you must have in your pupil the attribute of character. Officers getting their recruits from amongst the men—or rather the overgrown boyhood—of the nation, want men with character, but they do not get such, because our education does not go in for character training. It teaches the "three R's," and our lads perhaps are gaining more book intelligence, but they are getting less and less of character into them, because of over-civilization, and the book education of our schools does nothing to counteract this. Only three days ago I was speaking to an educational authority, who said: "Our nation has been very nearly ruined by those monks of old who started book learning as the one corrective to the over-zealous soldiering of the day, and they have thereby practically wrecked our 'character.'"

#### THE HOBBLE SKIRT.

Of course, education has improved enormously, but to a very large extent it has been directed by the educators themselves. With all due deference, they are not always the best judges of what kind of education is required for the different lines of life. We see a parallel in the dress of the ladies today. They want a dress which looks graceful and artistic, which is easy and comfortable for walking in, and which does not expose too much of the form divine, and so on. They wear a hobble skirt. It is made for them by the dressmaker, who says it is the right thing, that "it is easy and graceful, and if you do not like it, or think other forms of dress are more useful or becoming -well, you can go somewhere else." That is what we have in regard to our education. The educators tell us, "You boys have to learn reading, writing and arithmetic, and that is all that is necessary. If you have absurd fads about training a man to make himself a success in life, you can go somewhere else." There are others—especially our self-made men—who say that reading, writing and arithmetic do not necessarily make a man's career a success; it is his character.

#### CHARACTER TRAINING FOR BOYS.

Character is the great essential to success, whether in the nation or the individual. Yet, character training is the one

thing which is omitted in our education. It is true that boys in our great public schools pick up a certain amount of character, but that is just fortuitous; it is not directed; they have a certain sense of "good form" and act up to it. But there is nothing of that kind amongst the poor class of boy in the elementary schools. There is nothing inside or outside the school walls which trains them in character. That is where the Boys' Brigade and the Church Lads' Brigade and the Young Men's Christian Association are doing good work; they are trying to inculcate in the lower order of boys some sort of character by the institution of organized games and discipline. The Boy Scouts is the newest addition to this group. But, of course, it is uphill work, done by individuals, and the different organizations work in different ways-although we all endeavor to pull together as much as possible. I only wish we could see some authority taking command of the whole lot of us and organizing us, and bringing our efforts in a proper channel, so that there is no overlapping or leakage. If some such "combine" were carried out, we could, I believe, get hold of the mass of the boys and make them men of character, and thus change the whole outlook of the nation in the near future.

#### CADET CORPS.

Character training for our boys, then, is the essential groundwork for making our men into a nation of good citizens. It is equally essential for making them into soldiers. Now, one great organization which is doing a great good for the boys, in addition to those I have referred to, is that of the Cadet Corps. It gives them an outdoor life and physical development; it gives them the training of soldiers, the love for their country, and a sense of duty and discipline, which, as I say, is not given them inside the school walls. I have been an ardent cadetman since I was a bugler in the Charterhouse Cadet Corps; I have had cadets under me on active service; I have held the rank of honorary commander of several Cadet Corps, and I have seen their great expansion in our over-sea dominions; but, gradually, as I have got older and studied their ways and looked around, I have detected many shortcomings and many defects in the cadet system. Not long ago my suspicions were turned into almost certainty by Mr. John Burns. "You are going in the wrong direction with those cadets of yours," he said, "because the more you train and drill a boy to be a soldier in his youthful years the less he will want to become a soldier when he comes to the age for soldiering. You have to be careful how you put the glamour of wearing the King's uniform before him, because it may wear off as he gets older; he gets bored with the drill, and he may never want to take to it again."

One sees, on looking into the returns, that that is very much what has happened with Cadets; only a very small percentage have gone into the service afterwards. Now that the system is improving and the work is getting more interestingless of the goose-step and more of the field work-no doubt that state of things will improve, but, still, there are undoubted drawbacks to the Cadet organization. We should owe a great deal to Cadet Corps if they could make up for the omissions of the school education of the boy. If you look at the large mass of the middle class and lower class boys you will find, as they grow up into young men, they have no sense of discipline, they are very self-assertive—though for very little reason-and they are wanting in self-reliance and in fortitude, which are essential qualities whether they are going to be citizens or soldiers. That point is brought home to us by our oversea dominions where "no Englishmen need apply," where formerly an Englishman used to be the very type of fellow that was wanted.

One sees it, too, in the army, thriftless fellows coming in with no idea of discipline, and officers having to try and hustle it into them at an age when they are probably too old to pick it up. So a great possibility would seem to lie before Cadet Corps, at any rate in the United Kingdom. What it may be in some of our over-sea dominions where there is an obligatory system I do not know; the authorities may be able to keep them longer as Cadets and to give them a more thorough training in real sound discipline such that it becomes part of their character. But we British do not readily accept a merely repressive form of discipline, with punishment for faults. It

does not take hold of us. What we act up to is more a sense of "playing the game," a sense of honor and "good form." These appeal to an Englishman much more than any dread of punishment, and supply a much sounder and more permanent form of discipline, and one which we can instill into him if we can only get the boy early enough, before he has grown into the hooligan or the lout.

### SHORTCOMINGS OF CADET CORPS.

The points which I have regretfully to acknowledge against my beloved Cadet Corps are these:

- 1. First of all there is need for specially capable officers for training the boys, because it is not every man who has the peculiar gift of training a boy, and these are very hard to find, good officers preferring the more serious form of soldiering.
- 2. The expense limits the Cadet training to only a certain class of boys.
- 3. A very considerable portion of our citizens conscientiously object to their sons being taught soldiering, and the idea of fighting and bloodshed, before they are of age to judge for themselves, and therefore bar their sons from serving as Cadets. Well, that is a thing you have to take into consideration.
- 4. The principle of the Cadet Corps is only applicable to populous centers, where you can raise a company. Out in the country districts a boy gets no chance of becoming a Cadet.
- 5. The physical training is only a nominal thing. While they are on parade they get a certain amount of exercise, but the parades are very few and far between.
- 6. It is the same with the discipline. They only obey orders while they are on parade; the discipline is put on with the uniform and taken off with the uniform; it does not go into their soul and mind, and it does not become part of their character—which is what we want.
- 7. Then there is the fact that the glamour wears off when they come to the age to go into the service. Only 10 per cent join the army.

- 8. Then, of course, the system fails to give any idea to the boys of their duty as citizens.
- 9. It involves the expenditure of a certain amount of public money.

# ADVANTAGES OF THE BOY SCOUT SYSTEM.

- I fear I have drawn a very dark picture of the Cadet Corps system; I want to show up the Boy Scouts movement as the bright side!
- 1. In the Boy Scouts we have a work which appeals more widely to both the officers and boys, so there is less difficulty in getting qualified officers to join.
- 2. The Boy Scouts movement is non-military, that is to say, we do not do any military drill. That fact appeals to a very large number of parents. We have in our ranks boys of all denominations, non-comformist and others; anti-military parents will allow their sons to join the Boy Scouts, but prohibit them from joining a Cadet Corps. Even the Boys' Brigade and the Church Lads' Brigade undertake a certain amount of military drill. So we fill a gap.

Incidentally, the Army Council have done us a good turn by not allowing officers in uniform to inspect us. That has gone a long way to explain to people that we are non-military. They accept us now; they used to suspect us before of being a trap to catch boys for the army. I do not know whether this principle is followed in the over-sea dominions; I think that there the authorities rather encourage officers to come in uniform as an aid to recruiting, because their medals catch the eyes of boys, and start in them the spark of military keenness.

3. The Boy Scouts' organization is applicable to small centers. Our unit is eight boys under their own patrol leader, so that every village and hamlet can have its little group of Boy Scouts. This would not apply to a Cadet Corps, so we fill up a blank there. I am thinking also of far-away corners of the world; for instance, Canada, where they find the idea particularly useful in all their little back towns and villages. They are able to raise their little troop or group of Boy Scouts where they could not raise a company of Cadets.

- 4. The moral training and sense of duty and discipline goes on all the time. The question was asked of headquarters the other day, "When is a Boy Scout off duty?" We replied, "Never; he is always on duty, whether he is in uniform or not." It is his business to be ready, just like a policeman, to help at any moment. The boys all realize that. They are always on the lookout to do something for somebody, whether they are in uniform or not. Therefore the sense of duty and discipline really becomes part of their character.
- 5. The training, which they undergo, of living in camp, cutting their own fuel, cooking their own food, being able to swim and save life, managing boats—all those things make for health and handiness, and make them resourceful, manly fellows. That training is intended to lay a character foundation in the boy for taking up any line of life afterwards. Thus, if a Boy Scout goes into the army he is thoroughly grounded in discipline and sense of honor and duty, as well as in campaigning, scouting, pioneering and signaling, and it only needs the polish of drill to make him into a first-rate, all-round soldier. Let anyone ask a commanding officer of a regiment who has tried both which he would prefer to have—a Cadet or a Boy Scout as a recruit, and the answer will invariably be that he would prefer the Scout.
- 6. Although our policy is not to make the boys into soldiers, but as a first aim to make them good citizens, the results show that a very large proportion of our boys who have left us have gone into the service; as far as I can judge, about 70 per cent, and they join from an idea of serving their country, and not, like so many other recruits, from want of employment.
- 7. Since the Boy Scout system has spread to every part of the Empire, it can standardize the training of our race if desired. Such standard, if used in all the Cadet Corps, would be of very great importance, especially in the near future, for our Imperial Army.
- 8. Then, the movement has done a great deal of good for the Scout Masters, who are young men who have had no character training themselves, but, in dealing it out to boys,

are bound to pick up some of it themselves. Employers have told us that their young men who become Scout Masters improve enormously, and we are really coming to be looked upon as a university for that class of young man who cannot afford to go to the big universities. We have at the present moment 7,000 of these young fellows, and we are opening classes of instruction for them. In the meantime, they are developing for themselves that character which they otherwise would never have picked up, either at their school or at their places of business.

9. The movement has spread, as you will probably know, to all corners of the Empire; I think there is scarcely an oversea dominion, however small, which has not got its scouts. (Yesterday we heard that Fiji and Honolulu are the latest recruits.) It means that there is a comradeship between these boys right across the world, which is something more than a mere sentimental touch, such as comes from reading books or newspapers. They feel they are brothers and comrades, all under the same flag, wearing the same uniform, doing the same kind of work, and reading the same newspaper. It, therefore, brings the over-sea dominions into closer touch with our boys at home.

The movement has not spread merely to the over-sea dominions, but has spread to other nations besides ourselves, and great sympathy is being aroused between different races of boys from the fact that they communicate with each other. The system is that those who live in a town beginning with a certain letter of the alphabet communicate with another town commencing with the same letter. Boys in Manchester, for example, are communicating with Melbourne or Moscow on St. George's Day by means of picture postcards with greetings on them. In that way, the movement is creating a sympathy between the boys of all nations of the world.

10. Lastly, scouting does not cost anything to the tax-payer.

# THREE AIMS IN THE SCOUTS' TRAINING.

I will now sketch briefly the scheme of training adopted in the Boy Scout movement.

Our main aim is to help the national training in character.

Over-civilization threatens England with deterioration. Free feeding and old age pensions, strike pay, cheap beer and indiscriminate charity do not make for the hardening of the nation or the building up of a self-reliant, energetic manhood. They tend, on the contrary, to produce an army of dependents and wasters, and this is being steadily recruited by 46 per cent of our working boys, who are employed, so long as they are boys, in "blind alley" occupations, which fit them for nothing when they become grown up.

The best types of manliness left in our race are our colonial frontiersmen—men who, if they want to live, have to be resourceful and energetic, plucky and enduring under the difficulties of climate and surroundings, and who have to fight their way to success.

These are the men whom we hold up to the boys as examples to follow. They are the true "scouts" of the nation.

Their backwoods life appeals to every boy, and he is eager to practice its detail.

So, under the attractions of scout craft we inculcate into our young Scouts the better attributes of their heroes, the backwoodsmen. We divide the training into three parts—(a) individual character, (b) handicrafts, (c) public service.

(a) Individual.—Our first object is to make the boys good individual men. We do that by teaching a boy field scouting and campaigning work. Before he can become a first-class scout he has to pass all sorts of tests in backwoodsmanship—a work which appeals to him; he has to be able to chop down a tree, be able to build a hut, make a tent, light a fire, kill his animal and cook it, make bread, be able to swim and save life in the water, manage a boat, and many different things of that sort, and in addition he has to have a balance at the savings bank—it may be only a shilling, but, still, he has to open a banking account, thereby gaining an incentive to thrift. Then, again, he has to be helpful to other people; he has to learn first

aid; he has to know how to signal; he has to know all these things before he can become a first-class scout. A first-class scout is therefore a capable, all-round young man.

(b) Handicrafts.—The second point is that we try to teach him to be a handicraftsman. We induce him to take up hobbies which may be useful to him in after-life, and, even if he should fail in one, he still has a second or third to fall back upon.

Take a Boy Scout as a sample. First of all, the badge on the front of his hat and the little flag on his staff mean that he is a "patrol leader" who is in charge of eight other boys. He commands them, and is responsible for them at all times. Then, on his arms he wears badges of efficiency. He has passed as a gardener; he has also passed as a leather worker, that is, in saddlery and boot-making, and that kind of thing. He has also passed as a musician; as a cook; as a shorthand writer; as an animal naturalist, and as a missioner (which means he can go down into the slums and look after aged people, changing their bedding, and so on). He has the first-class badge as a scout, which means he has made himself an all-round man. He is also a King's Scout, which means that he has qualified himself in various details in four different subjects which make him of good service to the King, should he ever be required. In the first place, he is a "cyclist"; that means he owns his own bicycle, and knows how to mend it; he can find his way by map, and carry a message in his head for an hour; he has signed on to turn out at any moment, whenever the King may require his services. Then, he is a "signaler." He is a "marksman" with the rifle. And he is a "guide"; that means he knows all the short cuts round his place of residence; he knows the supplies, where to get horses and forage, where the telegraph, telephone, hospital, fire and police stations are to be found in his neighborhood. That makes him a King's Scout.

Those badges of efficiency are merely to induce the boys to learn for themselves, and it is perfectly surprising to us who are working in the movement to find to what a great extent they adopt and carry out the idea. Over 100,000 of these badges have been issued. There are 5,000 Scouts who have passed the test of being able to signal in the same way as the

army signalers. The marksmen number 5,799, and, of cyclist dispatch riders, each owning his own bicycle, and signed on to serve the King, there are 14,284. Of "King's Scouts" there are 2,140.

(c) Public Service.—Our third point is to teach the Scout a sense of service to others. It is the business of a Scout to save life whenever he can, and to do good turns daily to people. It does not matter how small or big they are. I heard of an instance as I was coming in. A Boy Scout had been to a dance last night, and he went and asked the hostess if she would introduce him to a certain lady in the room. The hostess said, "Have you fallen in love with her?" He said, "No, but she looks so old and plain that I do not think anybody will dance with her, and I shall not be doing my duty if I do not dance with her." We issue life-saving medals to those who risk their lives, and certificates to those who save life without risk. Of life-saving medals, we have issued 226, and of certificates 105. That is in the short time we have been at work. It means a great deal, because the cases are very highly tested. Then, when they do a good act, they are never allowed to say anything about it. Troops and patrols specialize their work for the public service: thus one troop will take up Fire Brigade work, another Ambulance, or Missioners, or Coastguards, duties for the good of the community.

#### HOW THE SCOUTS HELP CADET CORPS.

The Scout movement and system is also helping the Cadet Corps more than people seem to realize, especially in our oversea dominions. In New Zealand, by an arrangement with the government there, a boy has the alternative of becoming a Scout or a Cadet, and the idea seems to be working very well. In India the government have decreed that in all the schools for boys of European origin the boys should be Scouts till they are 14, and a capitation grant is made for those who pass their tests as first or second-class Scouts. In other places there is an arrangement whereby a boy can go for two years as a Boy Scout, and then be promoted to a Cadet, when he gets the finishing touches of drill, tactics and military training. In

Canada to a very large extent the Cadet Corps are using the Boy Scout system for training their boys.

There are several mounted troops of Scouts in Canada. I saw one particular corps, a cadet squadron to Strathcona's Horse, and they are the smartest lot of lads one could wish for.

# SEA SCOUTS.

Then we have Sea Scouts in addition to Land Scouts, and they are being recognized now by the Board of Trade. They are divided into (a) Coastguard Scouts, (b) Seamen Scouts. We have just got news from Canada of the first training guardship being started at Vancouver with Boy Scouts as her crew, and no doubt the idea will spread to Toronto and other centers, and form a nucleus for manning their future navy.

Of course, we are only very much in embryo at present. I am only mentioning these points to you because they point the way in helping the defense forces both here and over-sea.

# BOY SCOUTS OF FOREIGN COUNTRIES.

I should like to point out that in countries where military service is obligatory the Scout training has also been adopted, because the authorities appear to recognize the value of the character training which underlies it. In Russia they have taken it up specially with that view. They have a large number of cadet corps there which have now adopted the Scout training to a large extent. There are now over 10,000 at work, and they are increasing every day. I had to go to Moscow in the winter, and I saw over 3,000 there. They fully recognize that drill is not everything; character training is also wanted. Italy has taken it in the same way, and I may say that the Emperor of Russia and the King of Italy are both at the head of their respective movements, and are keenly interested in it. Again, in that country, which I look upon as the finest military country of all-at least, they are the soldiers I should least like to meet in battle, namely Chile-they have gone in for Boy Scouts, and have 10,000 at the present moment. The Chilian is a fine fellow, with a fighting instinct, with a general

staff trained entirely by the German military staff in the most up-to-date tactics and strategy. They have a fine army, and you would think they were the finished article, but, still, they have gone in for the Boy Scout movement. That indicates that there are points other than mere military training in the Scout movement, which military nations find of value.

# NEEDS AND POSSIBILITIES OF THE SCOUT MOVEMENT.

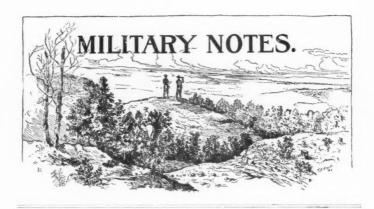
In the Scout movement we aim for better citizenship, because we all recognize that a nation, to be great and strong and prosperous, is not necessarily the greatest in its fleet or in its armaments, but that its character is what gives it supremacy. To make character in your citizens you have to make each individual man a man of character, but we have no proper education for that at present within our school walls. We have to try and do it outside the school walls, and that is what we are endeavoring to do in the Boy Scouts-to put character into these young lads of all classes. Our only need is for more men to act as officers and commissioners. We have already a good number of ex-officers and others at work. Our numbers are practically limited by the numbers of men who come to us as Scout Masters; we can get nearly the whole of the boys. If we can get their support I believe that we ought to do very great things. We are being very much encouraged on all sides. The movement is spreading in all the over-sea dominions.

Large numbers of Scouts are coming over for the King's review on the 4th July. Some are even coming from Australia as well as Canada and South Africa and nearer places, which means that the boys of our Empire will get into a close personal touch of brotherhood with each other.

In the United States also they have their Boy Scouts. There is a greater number of them there than in this country, because the money in the States flows in more easily. The last report received shows that they were going on for their 300,000 Scouts. I have no doubt the same thing will happen in our over-seas dominions. In Ontario, for instance, they are

getting on for their 10,000. There is a great feeling of unanimity and brotherhood right through the movement, and if it goes on spreading there is no doubt it will make a great feature in our Imperial feeling throughout the Empire, and also be one of the elements which will make for that great general peace of the world for which we all hope.





# MANEUVER CAMPS VS. MANEUVER CAMPAIGNS.

READ with great interest Captain Chitty's article in the recent number of the Cavalry Journal on Maneuver Camps versus Maneuver Campaigns. Had the article been written a few weeks later its author could have had further material to illustrate his main points in the history of the maneuvers of the Massachusetts Militia of this year, for they constituted a maneuver campaign extending over eight days, counting the day of assembly and the day the troops returned to their home stations.

The campaign furnished abundant evidence to substantiate every important point made by Captain Chitty. A single general situation continued throughout the period. There was a brigade of infantry with cavalry and artillery on each side. The troops operated over a large area and never covered the same ground twice. The conditions were as near those of war as it is practicable to get them in time of peace. The concentration points were near Salem and Lowell, about twenty-five

miles apart. The commanders were dependent on their cavalry and other reconnoitering bodies and on imaginary superior commanders in rear for their information.

The commands were accompanied by the campaign allowance of baggage. One brigade was equipped with a wagon train and the other with automobile trucks. These worked from established bases, which were moved as the forces changed positions. The subsistence depots were at these bases and consisted of cars on railroad sidings. Fresh beef and bread were issued daily. Of the other components of the ration, two days' rations were carried on the transportation with the troops.

To give an illustration of the lessons learned, it is stated that the wagon train of the Red brigade on its first march was scattered over more than two miles of road with no organization and with a company of infantry vainly endeavoring to adopt some disposition which would afford it adequate protection. This same train, on the day it made its last march, was organized into three sections, each under the control of a regimental quartermaster, with wagons well closed up and moving along so as to leave the highway open to passing vehicles.

It was war from the first day to the last. Interest was keen from the outset. The opposing cavalry forces had a small clash on the first day and the interest grew. Again on the second day there was a cavalry combat and the spirit of war took a firmer hold on all.

On the third day the cavalry forces missed each other and each got a sight of the opposing infantry and had some fighting with small detachments. On the fourth day the two main forces drew together and camped that night with their outposts in combat. The following day there was a running fight for about eight miles, and, finally, on the last day, the retreating force was compelled to stand and the decisive engagement was fought. The great variety of work afforded by the campaign may be seen at a glance.

By introducing an imaginary superior for each commander it was possible for the Chief Umpire to control the operations and to give them a touch of realism they would not otherwise have had. In this manner, also, ridiculous situations were avoided. The newspapers announced, after the first day, when it was known that the forces had concentrated near Salem, that the big fight of the campaign would take place in a day or two about midway between these two towns. And so it would had not the imaginary commanders given the Chief Umpire the power to turn the forces in other directions. Yet this power was not abused, and only such orders were issued by these imaginary commanders as they in all probability would have issued had the situation been real. But the newspapers were mistaken. The two forces did not come together head on the second or third day, as they have done so often before in maneuvers. Instead they finally came together on the sixth day away off to the northeast at Newburyport at the mouth of the Merrimac river.

To do this each side made four marches, those of the Blue force totaling thirty-five miles and those of the Red a little less. The other two days they lay in camp. Imagine troops remaining over a day in camp in the ordinary maneuver! Those imaginary superior commanders made this possible. These days in camp and afternoons after short marches were utilized by the umpires to work out small tactical problems in the vicinity of the camp ground. These problems had nothing to do with the big situation, but it was on all the time just the same.

From the day of concentration until the morning of the seventh day the outposts were always in position and patrols not to exceed a platoon in size could operate day and night. I know of no maneuver before this which has combined so much instruction for junior officers and enlisted men with the instruction of higher commanders and their staffs.

It is believed that the maneuver is worthy of special study for two main reasons: First, because, like the Massachusetts maneuvers of 1909, it supports Captain Chitty's contention that the maneuver campaign should replace the maneuver camp, and, second, to determine whether the idea of control of the contending forces by the Chief Umpire should be generally applied to our maneuvers in the future.

I did not intend writing all this when I began, but only to suggest that you ask the umpires to give you something about these maneuvers. I had the best lot of umpires ever gotten together and the splendid success of the maneuvers is due to them.

HANNA.

Note.—In editing the above the names of the several umpires have been omitted, to spare their blushes, but they have been requested to furnish accounts of these interesting maneuvers.

# THE REVOLVER.

In reference to the present discussion concerning the utility of the pistol, it might be well to consider if most of the objections to the arm could not be eliminated before deciding to abolish a weapon distinctively "American" and which has been developed in actual service. The principal objections urged against it are:

- It is a difficult weapon for the average man to learn to use.
  - 2. In the hands of the average man it is not accurate.
    - 3. Instruction in its use takes too much time.

We want, then, a pistol the average trooper can become reasonably proficient with in a short time. I believe this can be accomplished by changing the form of the pistol and the method of target practice.

The pistol is essentially a short range weapon; its target in service is over five feet high and two feet wide. Now, while it may be difficult to teach a man to hit a five-inch bull's eye at fifty yards, it is not so to teach him to hit a man or a horse at ten, either mounted or dismounted, provided he is given a weapon he can handle. To do this the pistol should be used like a shotgun, pointed, not aimed. This was recognized in the old drill regulations and in the old firing regulations, and there is a half-hearted attempt to indicate it in the

present book, but we can depend upon the fact that so long as a man's qualifying as a pistol shot depends on his being able to hit a small spot at fifty yards, he will sight his pistol and not point it. We can trace this kind of firing, as well as nearly every weak point in both rifle and pistol, to competitions and competition training. If we should substitute for the present long instruction and record practice, dismounted, a short instruction course under twenty yards at bobbing targets, we would use much less time and the men would be better prepared for mounted practice. I agree absolutely with Captain Booth that the record practice should all be mounted. It is conceivable that an officer might want to use a pistol dismounted and at over twenty yards, but so long as the trooper has a much more accurate weapon in his hands in the shape of the rifle he is not going to draw his pistol for dismounted fighting. The present dismounted course is no preparation for the mounted. We learn to use two weapons instead of one.

Concerning the form of the present pistol, it is much too big a handful for the average man, not as regards weight and size, but as to the distance between the butt and the trigger. If we examine the pistols which were used twenty-five to fifty years ago, when the arm was in constant use, we are struck by the extremely satisfactory "grip." The distance from the butt and the trigger was short, both in the muzzle loader of Civil War days and in the old Colt's .45. When the .38 was adopted this had to be changed to accommodate the double action mechanism. The new .45 is no better in this respect, being simply an enlarged .38. A pistol with a shorter grip should then be adopted, even if it is necessary to abolish the double action. The double action is of doubtful utility in any case. I have never seen a good pistol shot use it in any class of fire. We must have either a smaller grip or a bigger man, and the former is the easier to obtain.

If we grant that the pistol is not to be used over twenty yards, why not have a multiball cartridge? With a large (say .55) caliber, smooth bore pistol, carrying four bullets a little larger than buckshot, with a three-foot "pattern" at twenty yards, a man could aim a foot and a half off the target

and still make a hit. That such a weapon would have sufficient stopping power will be readily believed by anyone who has seen the effect of a load of buckshot at short range.

Give us such a pistol with a short grip, a dismounted practice which is a preparation for the mounted work, and the complaint that a mounted man cannot hit anything with a pistol will be heard no more.

> K. B. Edmunds, First Lieutenant, Fifteenth Cavalry.

# SMALL ARMS FIRING MANUAL.

I HAVE the honor to submit the following comments on the Small Arms Firing Manual, with request that they be submitted to the board convened for the purpose of revising that manual.

No more serious comment could be made on the present system than is contained in General Orders No. 32, War Department, March 10, 1911, in which 16,007 men are reported "Unqualified" in revolver firing and 17,473 "Unqualified" in known distance rifle firing, counting the troops of the United States Army not in the Philippines, and which reports 264 out of 386 organizations "Deficient" in the proficiency test.

Under paragraph 215, certain mounted officers get an "Expert" badge without going through the mounted course which is required of other mounted officers and men of the same command.

The effect of paragraph 360 is that a cavalryman gets absolutely nothing for his mounted shooting. In fact, he gets a handicap.

The revolver has always been compared with the saber as a cavalry weapon. The radius of the circle described by the saber is three feet. The man who shoots the revolver is required to qualify at forty-five feet as a minimum range. I recommend that revolver ranges of ten feet be introduced.

The duelist, we are told, wore a coat buttoned up to the throat, with no buttons or other distinguishing mark. Even

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then he could not approximate the dull monotony of targets "Q" and "R." I recommend that a vertical line four inches wide be marked on those targets and that hits on this line be counted at double the value of hits on other parts of the target.

The competitive system appears to be relied on to maintain efficiency in firing. But removing the mounted firing from competitions will discourage mounted firing. It is a common thing to hear it said that a man is a good dismounted shot, but he cannot shoot mounted, and I believe that the mounted firing is the only class of target practice in the army or navy which receives this official mark of disapproval.

I believe that serious consideration should be given to the fact that cavalry action dismounted is different from infantry action and that its system of target practice should be different from that of infantry. I see no reason, for instance, why the infantry attack should be considered a part of the instruction of a cavalry soldier.

SWIFT.

# REFERENCE TO ABANDONING THE PISTOL.

I WOULD be sorry to be classed as a reactionary, but when the question is broached of abandoning the pistol as a weapon for cavalry, I am minded to take a chance in defense of what I regard as a most valuable firearm for this corps.

The cavalryman has a lot to do beside charging in line and fighting a dismounted action with his rifle. He will probably see more service with small mounted detachments of from two to ten men than in his other legitimate roles; and he may go through several campaigns without drawing his saber on business; but his pistol will be a very comportable and not improbably a timely and efficient tool to have along, every time he pass the outguards. Few men can be trained to fire effectively from the saddle with the rifle. Times will be many on patrol duty when a pistol shot from the saddle will save a trooper and bother an enemy; and in

the mounted action it is not at all impossible that a charging line of the enemy's cavalry can be very roughly handled and maybe shaken before the shock, by our foragers with the pistol. Moreover, the possibilities of the automatic pistol are not yet realized. As a weapon for mounted firing it is incomparably superior to the revolver. Generally speaking its accuracy is far greater and it is much easier to manipulate than the revolver. Changing magazines is easy; and a man hit by that bullet is going to think he has been punched by a crowbar—an ideal desideratum. I hope the progressive element in the cavalry will unite in developing this weapon.

The army could be efficiently trained if it could be definitely excused from broom brigade drills and commercial picnics. The lovers of military spectacles could come to military posts once or so a month, see the soldier in his home, engaged in military exercises, entirely incidental to his training and arranged in a brisk schedule, for the purpose of letting the people, who have a right to know what the army is doing, see demonstrated the beneficial results of military instruction. At such exhibitions the army would be the host, instead of a "feature," tolerated because it draws the crowd. Military exercises rather than acrobatics would receive commendation.

Relative to discredited weapons it might be remarked that very able arguments have been advanced to prove the bayonet an archaic weapon; but there will be found few to sustain these arguments. Hand grenades, too, are looking up. Our people made them out of baking powder cans for cotta attack and the Japanese made nice ones with which to reason the Russians out of Port Arthur.

The pistol does not weigh much, is carried where it is not in the way, has a great moral value in persuading a man to go willingly where otherwise he would like not to go at all, and finally, in the hands of a good man is a very dangerous weapon—not from the standpoint of the shooter, as the funny men are fond of saying, but specifically from that of the shotee. I find the field officers of my regiment concurring in the foregoing.

J. A. Cole,

Major Sixth Cavalry.

# ORGANIZATION OF CAVALRY REGIMENTS OF FOREIGN ARMIES.\*

| COUNTRY:     | Squadrons<br>per<br>regiment. | Platoons<br>per<br>squadron. | No. of men<br>per<br>squadron, | No. of men<br>per<br>regiment.; | REMARKS.                                                                                                                   |  |
|--------------|-------------------------------|------------------------------|--------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------|--|
|              | regiment.                     | squadron.                    | squadron,                      | regiment.                       |                                                                                                                            |  |
| Argentina    | 4                             | Not given                    | 82 Peace.                      | 382                             |                                                                                                                            |  |
| Belgium      | 5                             | 46 16                        | 130 Peace.                     | 780                             | And one depot squadron.                                                                                                    |  |
| Doig tum     | 5                             | 44 46                        | 170 War.                       | 1020                            | And one depot squadron.                                                                                                    |  |
| Bolivia      | 4                             | 66 68                        | 100 Peace.                     | 400                             | 1                                                                                                                          |  |
| Brazil       |                               | 66 64                        | 100 Peace.                     | 400                             | 1                                                                                                                          |  |
| Bulgaria     | 4                             | 44 44                        | 155 Peace.                     | 620                             | 1                                                                                                                          |  |
| Duigaria     | 4                             |                              | 175 War.                       |                                 | 1                                                                                                                          |  |
| Chilli       | 4                             | 44 44                        | Not given.                     | 700                             |                                                                                                                            |  |
| Chili        | 3                             | 15 54                        | not given.                     |                                 |                                                                                                                            |  |
| China        | 3                             | 46 46                        |                                |                                 |                                                                                                                            |  |
| Denmark      | 3                             |                              | 156 War.                       | 468                             | İ                                                                                                                          |  |
| Germany      | 5                             | 4                            | 148 Peace.                     | 740                             |                                                                                                                            |  |
| T2           |                               |                              | 168 War.                       | 840                             |                                                                                                                            |  |
| France       | 5                             | 4                            | 156 Peace.                     | 780                             | One squadron in reserve in                                                                                                 |  |
| _            |                               |                              | 170 War.                       | 850                             | war. 3 squads in each                                                                                                      |  |
| Greece       | 4                             | Not given.                   | 133 Peace.                     | 532                             | piacoon.                                                                                                                   |  |
|              |                               |                              | 250 War.                       | 1000                            |                                                                                                                            |  |
| England      | 3                             | 4 troops.                    | 160 War.                       | 480                             | Machine gun section. Each troop divided into sections.                                                                     |  |
| Italy†       | 6                             | 4                            | 159 Peace.                     | 954                             | Each platoon divided into                                                                                                  |  |
| Innan        |                               | Not oisson                   | 158 Peace.                     | 834                             | - The becomes                                                                                                              |  |
| Japan        | 3                             | Not given.                   |                                | 474                             |                                                                                                                            |  |
| M            |                               | 46 44                        | 179 War.                       | 537                             |                                                                                                                            |  |
| Mexico       | 4                             |                              | 113 Peace.                     | 452                             |                                                                                                                            |  |
| NT - 1 1     |                               |                              | 145 War.                       | 580                             |                                                                                                                            |  |
| Netherlands. | 4                             | 4                            | 128 Peace.                     | 512                             |                                                                                                                            |  |
| 27           |                               |                              | 154 War.                       | 616                             |                                                                                                                            |  |
| Norway       | 3                             | Not given.                   |                                | 372                             |                                                                                                                            |  |
| Austria-Hun- | 6                             | 4                            | 171 Peace.                     | 1026                            |                                                                                                                            |  |
| gary         |                               |                              | 171 War.                       | 1026                            |                                                                                                                            |  |
| Peru         | 6                             | Not given.                   |                                | 774                             |                                                                                                                            |  |
| Portugal     | 4                             | 4                            | 125 Peace.                     | 500                             | Each platoon has two sec-                                                                                                  |  |
|              |                               |                              | 185 War.                       | 740                             | tions.                                                                                                                     |  |
| Roumania     | 4                             | 2 and 41/2                   | 150 Peace.                     | 750                             | And one depot squadron.                                                                                                    |  |
|              |                               | platoons.                    | 183 War.                       | 915                             |                                                                                                                            |  |
| Russia . ff  | 4 to 6                        | 6                            | 15) Peace.  <br>15) War.       | 636-954<br>636-954              | Each squadron divided into<br>two half squadrons and<br>these into 3 platoons of<br>sections each, total of 8<br>sections. |  |
| Sweden       | 5                             | 3                            | 109 Peace.                     | 545                             | accordin.                                                                                                                  |  |
|              |                               |                              | 114 War.                       | 570                             |                                                                                                                            |  |
| Switzerland  |                               |                              | 128 Peace.                     | 384                             | Each squadron has 3 pla-<br>toons of 4 squads each.                                                                        |  |
| Spain        | 4                             | 4                            | 95 Peace.<br>155 War.          | 475<br>775                      | And one depot squadron.                                                                                                    |  |
| Turkey       | 5                             | 4                            | 138 Peace.                     |                                 | Foot plateon divided into                                                                                                  |  |
| ,            | 5                             | 49                           | 159 War.                       | -                               | Each platoon divided into<br>two sections.                                                                                 |  |
|              |                               |                              | . 29                           | 795                             | Jections                                                                                                                   |  |

<sup>\*</sup>The above table was prepared to accompany the report of Licutenant Colonel W. C. Brown, U. S. Cavalry, on Cavalry Reorganization which appeared in the July, 1911, number of the CAVALRY JOURNAL but which was received too late to appear in that number.

tIt would appear that this report as regards the Cavalry of Italy is a mistake. Other reports give the strength of their cavalry regiments as 5 squadrons of 155 men each in time of peace and 8 squadrons of 133 men each in time of war.

<sup>†</sup> This column has been computed from the data found in the preceding columns,

# CAVALRY EQUIPMENT.

Captain W. C. Short, U. S. Cavalry, Assistant Commandant Mounted Service School was recently ordered to report to the President of the Cavalry Equipment Board for consultation with regard to the new model of officer's saddle which the Board is preparing. It is said that Captain Short was greatly pleased with the Board's model of saddle, as developed, and with the equipment in general. Captain Short went thoroughly into the subject of the officer's saddle and placed before the Board a number of valuable suggestions.



# A PROTEST AND REPLY.

We have received from Lieutenant Colonel A. W. Warden, British Army, late of the Indian Army, a letter in which he makes a protest against a statement that appeared in Captain Eltinge's article on "The Psychology of War" that was published in the May, 1911, number of the CAVALRY JOURNAL. He writes as follows:

"Will you pardon my drawing your kind attention to Captain Eltinge's article on the Psychology of War in the JOURNAL OF THE UNITED STATES CAVALRY ASSOCIATION for May, 1911. On page 1049 you will find: 'When the Boers came up to them, many of the British soldiers were weeping.'

"I write to ask you to kindly ascertain what authority Captain Eltinge has for the above statement. I have failed, after a careful search and inquiry, to find any information to warrant this statement.

"Even if the fact is true that the British soldiers wept, I ask you, as an officer, whether it need be published at all, leave alone in a military journal and by a friendly nation."

To this letter from Colonel Warden reply was made which is as follows:

"Your letter of July 4, 1911, was duly received and I take pleasure in submitting the following statement regarding the quotation referred to by you:

"The extract in question was taken from Balck's Tactics and can be found on page 77 of the original German text,

Volume 1, fourth edition, or on page 88 of Krueger's translation of this work,

"Captain Eltinge informs me that, of course, there was no intention on his part, in delivering the lectures from which this article was compiled, to cast any reflection on the valor of the British soldier, but that this quotation, with many others appearing in this article, was made to illustrate the fact that a panic will at times seize the best of troops. Even the very next paragraph in this article as published, and on the same page, gives a quotation from Alexander's Memoirs which as severely criticises the action of certain American troops at Chattanooga. Similarly, other quotations appearing in this article gives instances where troops of other nations were panic-stricken, and it is evident that there was no intention to discriminate against the British soldiers or to particularize as regards the action of the British troops at Nicholson's Neck in 1900.

"In many books, both British and American, may be found accounts of the panic at the first battle of Bull Run during our Civil War, where the Northern troops, as a rule, fled from the field like miserable cowards, while it is true that these same troops afterwards became veterans and distinguished themselves on many battlefields.

"The valor of the British soldier has been demonstrated on too many occasions to be affected by this single account, even if it is correct, of a rare instance of a panic having taken hold of a few of them.

"Finally, let me assure you that there was no desire on Captain Eltinge's part or the Editor of this Journal to cast any aspersions upon the bravery or steadiness under fire of the troops of any nation, especially upon those of the British Empire."

# RISING TO THE TROT.

Soon after the publication in the March, 1911, number of the CAVALRY JOURNAL of the article by Major T. B. Mott on Seats and Saddles, etc., the secretary of the Mounted Service School at Fort Riley sent a circular to the student officers of the school and requested their individual opinions as to the advisability of adopting the rising seat for our service. Without an exception, all reported that they had read the article and heartily approved of rising to the trot as a saving on man and beast. Also, most of them urged the adoption of a saddle suitable to rising, which the McClellan is not.

This is published with the hope that it will bring forth something from those who are opposed to the rising at the trot.

E. B. F.

# A CORRECTION.

We have received a note from one of our subscribers in the British Army calling attention to a mistake that appeared in the article in the May, 1911, number of the CAVALRY JOURNAL. The article in question was entitled "The Cavalry of the British Army" and the error appears in the last sentence of the next to the last paragraph on page 1129. It read as follows: "Regiments in India have a reserve troop." Regarding this our correspondent writes:

"May I be allowed to point out an oversight that appeared in your excellent Journal for May, 1911? On page 1129, sixth line from the foot of the page, it should read: 'Regiments in India have a fourth squadron.' In South Africa each regiment has a reserve troop and in England an equivalent, called a 'reserve squadron.' The front ranks of British dragoon regiments in India are armed with the lance and both

ranks of all lancer regiments are so armed under all circumstances, the order requiring lances to be turned into store for active service which was issued after the Boer War having been rescinded."

# THE SECOND U. S. CAVALRY.

There has been received from Captain J. S. Herron, Second Cavalry, a letter giving an account of the celebration of the 75th anniversary of the Second Cavalry at Augur Barracks, P. I., on May 23, 1911. He writes, in part, as follows:

I have the honor, if your space permits and the subject is of sufficient interest, to request the favor of a brief notice of the celebration of the 75th anniversary of the Second Regiment, U. S. Cavalry.

Some much condensed data is inclosed. Rodenbough's "From Everglade to Cañon With the Second Dragoons" (Second U. S. Cavalry), from 1836 to 1875, gives the full history to the latter date.

It is doubtful if any regiment in the world can show a record that will surpass the Second Cavalry's record in battles, scouts, marches, skirmishes and sacrifices or more accomplishments in both war and peace.

# A BRIEF HISTORY OF THE REGIMENT.

Organized by act of Congress, May 23, 1836, as the Second Regiment of Dragoons; converted to Regiment of Riflemen by act of August 23, 1842; reconverted into Second Regiment of Dragoons by act of April 4, 1844; designation changed by act of August 3, 1861.

From 1836 to 1842 the regiment scouted the fastnesses and swamps held by the enemy, engaging him in sixteen fights, in the Florida Indian War.

From 1846 to 1848 the troops of the regiment engaged in practically every battle of the Mexican War.

From the close of this war to the breaking out of the American Civil War the regiment was sent after hostile Indians, the operations extending from Texas and New Mexico to Nebraska and Utah, and included fourteen engagements.

The history of the regiment during the period 1861 to 1866 is substantially the history of the Union field forces in the War of Secession, troops of the Second Cavalry having the honor of fighting in defense of the flag in the greatest, bloodiest and most decisive battles of that unparalleled struggle.

After the close of the war the troops of the Second Cavalry again were sent after Indians on the warpath, carpaigning against them, summer and winter, in Montana, Colorado, Dakota, Kansas, Nebraska, Wyoming and Idaho, adding fiftynine more fights to the honor roll.

From 1898 to 1911 troops of the Second Cavalry added Santiago, the Porto Rican campaign, the Cavite campaign, Ute Indian disturbances and the Tagacolas campaign to its honorable war record of the first seventy-five years of its existence.

The regiment's accomplishments during periods between wars include many important contributions to the advancement of the art and science of war, in the form of text books and other writings on military subjects, additions to geographical knowledge by extensive explorations of unknown lands, and successful colonial administration and government of savage peoples.

#### SOME OF THE BATTLES PARTICIPATED IN.

The Everglades. Iornado del Muerto. Palo Alto. Grande Canyon of the Ojo Resaca de la Palma. Caliente. Devil's Gate Canyon. Matamoras. Monterey. Bull Run, Manassas. Buena Vista. Fort Donelson. Vera Cruz. Yorktown. Cerro Gordo. Pittsburg Landing, Shiloh. Contreras, Churubusco. Gaines Mill. Molino del Rev. Malvern Hill. Chapultepec, City of Mexico. South Mountain.

Antietam.
Fredericksburg.
Stoneman's Raid.
Bevelry Ford.
Gettysburg.
Manassas Gap.
Brandy Station,
Rappahannock.
The Wilderness.
Sheridan's expeditions.
Cold Harbor.

Petersburg, Richmond.

Winchester.
Shenandoah.
Crazy Horse's Camp.
Rosebud.
Tongue River.
Slim Buttes.
Milk River.
Santiago.
Porto Rican campaign.
Cavite campaign.
Ute Indian disturbances.

Tagacolas expedition.

# HUNT AND POLO CLUB AT VANCOUVER BARRACKS.

We have received notice of the organization of a Hunt and Polo Club at Vancouver Barracks which bids fair to be successful, interesting and instructive. The Cavalry Association has always encouraged this particular line of sport or anything that gets our officers out and on their horses.

Probably there is no sport that develops all the necessary qualities of a good horsemon better than does the game of polo. To become a successful polo player, the rider must not only ride well but must at the same time keep his head under trying circumstances as well as to not unnecessarily injure his mount.

We will be pleased to learn of the continued success of this club and will be glad at all times to render them any assistance in our power.



#### Handbook for Riders.\*

While this book is evidently intended for the civilian student in a riding academy and therefore devotes much space to the subject of dress, etiquette, stable servants,

etc., nevertheless there is much to be found in the second part which will be of value to any one interested in modern equitation.

Unfortunately there are but few good books in the English language on the subject of horsemanship, and this may well be added to one's small library on "The Horse."

R. H. R.

# Japanese-English Dictionary.†

As the study of the Japanese language is now being taken up by many of our officers, the appearance of this dictionary is

timely, especially as it is compiled for military translators. Its author is First Lieutenant George V. Strong, Sixth U. S. Cavalry, of the American Embassy at Tokyo Japan.

<sup>\*</sup>Original Handbook for Riders. A Complete Guide to Horsemanship, By M. C. Grimsgaard, K. VO., G. M. E. H. S., Captain of Horse, Royal Norwegian Cavalry. The Winthrop Press, New York. 1911. Price, \$4.00.

<sup>†&</sup>quot;A Japanese-English Dictionery for Military Translators," By First Lieutenant George V. Strong, Sixth U. S. Cavalry, Kelly & Walsh, Ltd., Yokohama, Shanghai, Hongkong and Singapore. Price unknown at present.

As the writer has been unable to find any one that is familiar with the Japanese language, it is impossible at present to pass upon the merits of this work beyond stating that its general make-up is good. It is a work of over 540 pages, printed in large, clear type, on good paper, and is well bound in half morocco.

The following is an extract from the preface.

"This work is intended, primarily, for the translation of military articles from the Japanese into English. Most of the terms have been taken from the military regulations and handbooks or from the columns of the various military magazines and newspapers. The vast field covered by modern military articles makes it impossible to cover more than a portion of the ground in a work of this kind. If this book makes the work of the military translator in the future appreciably easier than it has been in the past, its purpose will have been fulfilled."

It is hoped that we will be able to give a more extended notice of this work in the future and to be able to give its cost and where it can be procured in this country.

Chinese-Japanese This book is uniform in make up with the Japanese dictionary noticed above, and it is evident that it is intended for use in connection with it. It is a small work of 188 pages, and is by the same author as the dictionary.

The following is from the introduction:

"The acquiring of a good working knowledge of the Japanese language necessitates the learning of a number of Chinese characters that, to a great extent, take the place of the alphabet of the European languages. These characters were originally word pictures, and, as such, each conveys a particular idea, alone or in combination with other characters. The mental effort required in learning and retaining

<sup>\*&</sup>quot;Common Chinese-Japanese Characters." By First Lieutenant George  $V_\bullet$  Strong, Sixth U. S. Cavalry. Kelly & Walsh, Ltd., Yakohama, Shanghai, Hongkong and Singapore. Price unknown.

these characters is the greatest obstacle to a white man's getting a knowledge of the Japanese language.

"This volume is intended primarily for the American student officer, who, at the end of two years, must not only be able to read the newspaper, but also to translate the more or less technical articles appearing in the various military periodicals."

Cookery.\* At first glance, it would appear that a review of a book of this class is out of place in a strictly military journal. However, when it is considered that we have schools for bakers and cooks in the army, and the Subsistence Department issues manuals for cooks, it seems that this is a proper subject for military discussion.

We, who have cooked in the open when on hunting and fishing trips, have all heard of the old time method of cooking fish and game by wrapping it in paper and burying it in hot ashes and it would seem that this new method of cooking is a development of that.

This small book  $-4\frac{1}{2}$  by  $6\frac{1}{2}$  inches—of 130 pages is devoted to the subject of cooking well-nigh all kinds of food, except soups, by enclosing them in specially prepared paper bags and using no pots or pans.

The author and originator of this system is a chef of a London club and, according to the literature on the subject that has been received, the method of cooking has been successfully tried all over England, more than 60,000 copies of the book having been sold within a month after its first appearance and the supply of the specially prepared paper bags, owing to the unexpected demand, became exhausted.

According to the book, its advantages are:

1. It makes food more savory and nutritious.

<sup>\*&</sup>quot;Soyer's Paper Bag Cookery." By Nicholas Soyer, Late Chef Brook's London Club. Sturgis and Walton, New York, 1911. Price 65 cents post-paid.

- 2. It is economical; the food weighing practically the same when taken from the oven as when put in.
- 3. It is labor-saving, there being no cleaning of pots or pans.
- 4. It is hygienic, there being no germ haunted cooking utensils.
- 5. There is no smell of cooking as the bags are sealed with a clip.

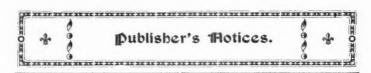
A Working Knowledge of Spanish.\* This is a small work —5 by 7½ inches—of 100 pages prepared by Lieutenant C. I. Crocket, Second Infantry, intended primarily for non-commissioned officers.

The author states, in the preface, that: "This Manual is presented with the hope that through its use the non-commissioned officers of our army may acquire what the title implies, 'A Working Knowledge of Spanish.'"

There are quite a few mistakes in this manual which, the author writes, will be corrected in a new edition about to be gotten out.

For those who do not have the time to make a thorough study of the Spanish language, this work will be of great assistance. It has a vocabulary of about one thousand carefully selected words of every day use with their pronunciation as given in Velazquez's New Pronouncing Dictionary.

<sup>\*&</sup>quot;A Working Knowledge of Spanish." By Lieutenant Cary I. Crockett, Second Infantry, 1910. Press of George Banta Publishing Co., Menasha, Wisconsin.



ROBT. H. INGERSOLL & BRO.

For the first time, an advertisement of this world wide known firm appears in this number of the CAVALRY JOURNAL. The Ingersoll Watch is known and carried by many soldiers not only because it is a cheap watch but on account of its reliability as a timekeeper. They are so cheap that everybody can well afford to have one.

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Below is appended a letter from Mr. T. J. Smith, one of the prominent horsemen at Vancouver, B. C., who devotes considerable time in hunting, as a member of the Vancouver Hunt Blub.

" Capt. Dr. Giov. Ciammaichella:

"DEAR SIR:—I am using several of your Safety Hygienic Horse Bits. The Hunting Bit is the most satisfactory I have ever used.

"I expect to see this bit become popular in the Vancouver Hunt Club. I have not yet used the Driving Bits very much, but I think they almost reach the ideal.

"Yours very truly,

"T. J. SMITH, "President Vancouver Horse Show."



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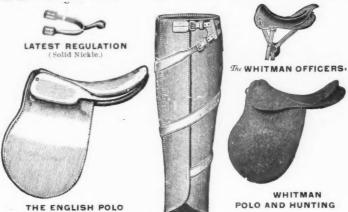
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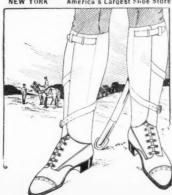
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